

# THE CANADIAN



*by Andrew Schmitz  
& Hartley Furtan*

**MARKETING** in the  
**NEW MILLENNIUM**

**The Canadian Wheat Board:  
Marketing in the New Millennium**





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by  
**Andrew Schmitz**  
and  
**Hartley Furtan**

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This book deals with a highly controversial subject. The authors themselves have been part of many of the controversies. We thank the many people involved for their interest and insights which have forced us to re-think and clarify our own positions on the various debates presented in the book.

## PREFACE

This book reflects decades of research, thought and debate on the part of its two authors. The subject is the Canadian Wheat Board. It is not a history book, yet it stands alone as a comprehensive record of the CWB for the last half of the twentieth century. It is not an economics text, yet it provides an impressive treatment of the complex economics which underlie the CWB and the grain sector. As well, it is not an agricultural policy manual with recommendations regarding the future role of the CWB. Yet, it is all of these and more.

Andrew Schmitz and Hartley Furtan are two agricultural economists born and bred in the Saskatchewan agrarian landscape and economy which were so important in giving birth to the Canadian Wheat Board. Their professional accomplishments are many and their involvement in agriculture has been varied and widespread. In short, there are few economists today who could so appropriately take on the task of providing a millennium chronicle of the CWB.

The importance which has been accorded the CWB in recent years in debate and discussion among farmers, in the media, in Parliament and at international trade talks, is, at times, surprising. However, the Canadian Wheat Board is a very important, if not pivotal, feature of agricultural policy in Canada. C.F. Wilson states: "Whether in Canada, Britain or the United States it seems almost incredible in retrospect that so many of the distinguished corps of civil servants of that era were involved in one way or another with the formation of wheat policy; likewise the number of ministers, prime ministers and presidents." Throughout the entire century, wheat, or more broadly, agricultural policy, has ranked high on the priorities of farmers and government. This book takes the reader on a fascinating journey through the world of farming, farm politics, marketing, law and international trade. At the end of this journey, we more fully comprehend the debates surrounding the CWB, the importance of recent changes in legislation giving farmers full control of their marketing agency and the passion surrounding these issues.

Like so many of my colleagues in the agricultural economics profession, I have been immersed in discussions and debates on the wide range of topics surrounding this truly remarkable institution, the Canadian Wheat Board. At times, it seemed as though we never stopped talking about the CWB. Agricultural conferences, canoe trips and barn dances all had one thing in common. At some point we would find our way back to discuss the finer points of the CWB debate. Whether in Buenos Aires, Canberra, Washington, Brussels or Regina, we would find no shortage of interested economists and farmers to join the discussion and add their thoughts. Often they would request the title of a book which provided a comprehensive overview of the CWB. Until now, such a book did not exist. Yes, there are excellent historical treatments of the CWB provided by C. F. Wilson and W. Morriss and others; however, these books do not touch on recent times and contemporary issues. As well, there are policy reviews and task forces such as The Western Grain Marketing Panel Report, but these reviews are narrow in scope and overly topical by their very nature.

This book provides a comprehensive treatment of the CWB through the eyes of two highly regarded agricultural economists at the end of the twentieth century. It does not shy away from complex issues such as the Charter Case or dual marketing, yet it is totally accessible to those without legal or economic training. This book will be a valuable resource to all Canadians who want a deeper understanding of the grain sector in Canada. Perhaps it will be most valuable to those from other countries who are trying to understand the CWB and its importance in world trade.

The discussions regarding the CWB will continue long after the year 2000 has come and gone. As a result of this book, it is hoped that these discussions will take on a clarity and focus that would otherwise not have been possible.

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## LIST OF ACRONYMS

AAFC	Agriculture and Agri-Food Canada	HRW	Hard Red Winter (wheat)
ABC	Alberta Barley Commission	IGC	International Grains Council
ADM	Archer Daniels Midland	ITC	International Trade Commission
AWB	Australian Wheat Board	IWA	International Wheat Agreement
CAP	Common Agricultural Policy	JFA	Japan Food Agency
CAPG	Car Allocation Policy Group	km	kilometers
CBM	continental barley market	LIFT	Lower Inventory for Tomorrow
CCA	Canadian Cattlemen's Association	LTA	long-term agreement
CCC	Commodity Credit Corporation (U.S.)	MAP	Market Access Program
CEO	chief executive officer	MGC	multinational grain companies
CFA	Canadian Federation of Agriculture	mnt	million metric tonnes
CFIA	Canadian Food Inspection Agency	MOA	memorandum of agreement
CGC	Canadian Grain Commission	MOU	memorandum of understanding
CI	Crop Insurance	NAFTA	North American Free Trade Agreement
c.i.f.	cost, insurance, and freight	NDFU	North Dakota Farmers Union
CIGI	Canadian International Grains Institute	NFU	National Farmers Union
CNMA	Canadian National Millers' Association	NGC	new generation cooperatives
CNR	Canadian National Railway	NISA	Net Income Stabilization Account
COFCO	China National Cereals, Oils and Foodstuffs Import and Export Corporation	NPC	negotiable final payment certificate
		NTA	National Transportation Agency
		NYCE	New York Cotton Exchange
CPA	Canadian Port Authority	NZDB	New Zealand Dairy Board
CPE	centrally planned economy	OWPMB	Ontario Wheat Producers Marketing Board
CPR	Canadian Pacific Railway	PFRA	Prairie Farm Rehabilitation Administration
CPRA	Crowsnest Pass Rate Agreement	PIK	Payment in Kind
CPSR	Canadian Prairie Spring Red (wheat)	PPP	Prairie Pasta Producers
CPSW	Canadian Prairie Spring White (wheat)	PRO	pool return outlook
CRP	Conservation Reserve Program	PRRCG	Prairie Registration Recommending Committee for Grains
CTA	Canadian Transportation Agency	ROW	Rest of the world
CUSTA	Canada/United States Trade Agreement	SARM	Saskatchewan Association of Rural Municipalities
CWB	Canadian Wheat Board	SCGP	Special Canadian Grains Program
CWES	Canadian Western Extra Strong (wheat)	SRW	Soft Red Winter (wheat)
CWRS	Canadian Western Red Spring (wheat)	STE	state trading enterprise
DNS	Dark Northern Spring (wheat)	SWP	Saskatchewan Wheat Pool
E.E.C.	European Economic Community	UGG	United Grain Growers
EEP	Export Enhancement Program (U.S.)	USDA	United States Department of Agriculture
EPR	estimated pool return	U.S.S.R.	Union of Soviet Socialist Republics
EQIP	Environmental Quality Incentive Program	VDM	voluntary dual market
E.U.	European Union	WCBGA	Western Canadian Barley Growers Association
f.o.b.	free on board	WCWGA	Western Canadian Wheat Growers Association
FAIR	Federal Agricultural Improvement and Reform Act (U.S.)	WCE	Winnipeg Commodity Exchange
FCC	Farm Credit Corporation	WGEA	Western Grain Elevator Association
FFPC	fixed forward-price contract	WGMP	Western Grain Marketing Panel
GAO	General Accounting Office (U.S.)	WGTO	Western Grain Transportation Office
GATT	General Agreement on Tariffs and Trade	WRP	Wetlands Reserve Program
GMRP	Grain Marketing Review Panel	WTO	World Trade Organization
GRIP	Gross Revenue Insurance Program		
GRT	gross revenue tonnage		
GTA	Grain Transportation Agency		
HRS	Hard Red Spring (wheat)		





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## CHAPTER 1

### INTRODUCTION

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Photo courtesy the Canadian Wheat Board.

*The Canadian Wheat Board building in Winnipeg, Manitoba. The Canadian Wheat Board, with annual sales of wheat and barley over CDN \$4 billion, is among the top ten largest export companies in Canada.*

*The Canadian Wheat Board (CWB) is one of the largest grain merchandisers in the world, accounting for about 12% of world trade in cereals. The CWB has exclusive... control over the international marketing of Canadian wheat and barley....The role of the CWB is a contentious policy issue. One of the most important agricultural issues facing the World Trade Organization (WTO) today is State Trading Enterprises [STEs] such as the CWB....Within Canada, the mandatory aspect of the CWB has been the subject of plebiscites, several court cases, and farmers have been sent to jail or fined for marketing outside of the CWB.*

— Carter, Loyns and Berwald (1998)

*As marketing boards go, the Canadian Wheat Board is the most powerful and prestigious in the world.*

— Dan Morgan (1979)

The Canadian Wheat Board (CWB) is one of the largest and longest standing public export-marketing agencies in the world. Its primary activity is marketing cereal grains for farmers in western Canada. For this purpose, the CWB has a mandate from the Canadian government to operate in the domestic and world markets as a monopoly (single-desk) seller of Canadian wheat, durum, and barley for human consumption, and feed wheat for export. With gross annual sales revenue of more than CDN \$4 billion in the 1990s, the CWB is the thirty-third largest Canadian corporation. The CWB is among the top ten largest export companies in Canada. CWB exports, at times, exceed 20 million tonnes of wheat and 4 million tonnes of barley. The CWB conducts business in more than seventy countries, either directly with buyers or through companies designated by the CWB to act as its exporters.

Due in large part to the CWB's monopoly nature, controversy has always surrounded its operation and mandate, but in the 1980s and 1990s this controversy intensified. Challenges to the CWB have come from many fronts, both inside and outside Canada's borders. One of the early challenges resulted in the creation, in the early 1970s, of a dual market for domestically consumed feed barley. As a result, the largest percentage of feed barley used in western Canada is no longer handled by the CWB. However, the controversy over barley marketing did not end there. The federal government funded a study by Carter (1993) that led to a federal ministerial decision by the Honourable Charles Mayer that created a continental barley market (CBM) on August 1, 1993. The CBM permitted Canadian producers to sell their barley directly to the United States outside the CWB. A federal court ruling on September 10, 1993 reinstated the CWB's compulsory domestic and export market structure. Other studies (such as Carter and Loyns, 1996) continued to support dual marketing over the CWB as a single-desk seller, and the Western Grain Marketing Panel (WGMP, 1996) recommended a full open market for feed barley to supplant the organizational control of the CWB. Despite academic studies, corporate recommendations, and behind-the-scenes politicking, when producers voted on the dual marketing of barley in 1997, a majority voted to defeat these freer-market solutions.

At the same time that this intense debate over barley marketing was occurring, a number of farmers, the Western Canadian Barley Growers Association (WCBGA), and the Alberta Barley Commission (ABC) brought legal action against the CWB for violating the Charter of Rights and Freedoms. They alleged that under the Charter, compulsory marketing of both wheat and barley through the CWB was illegal. Mr. Justice Francis Muldoon, who presided over the case in 1996 in Calgary, ruled in favor of the CWB. He contended that the selling of grain by the CWB was a policy issue and

did not infringe on rights under the Charter of Rights. As of January 1999, the case was still under appeal.

The CWB's alleged lack of price flexibility has also been a source of controversy. Some producers have complained that, under CWB pooled pricing, they are unable to forward price wheat and barley in a manner comparable to non-Board grains. The WGMP recommended ways to make the CWB's marketing strategies more flexible through cash payments and/or negotiated final payment certificates. The amendments to the Canadian Wheat Board Act in Bill C-4 authorized the CWB to introduce price flexibility arrangements.

Transportation of grain is another subject upon which there is little agreement. The relations between the CWB and Canada's two railways were tested in the late 1990s. In 1996, the CWB sued both the Canadian Pacific Railway (CPR) and the Canadian National Railway (CNR) for giving railway priority to non-grain products. In April 1998 the CNR settled with the CWB, and in March 1999 the CPR reached an out-of-court settlement that will pay approximately CDN \$15 million to prairie farmers for the shipping problems experienced during the 1996/97 crop year. Historically, the CWB had muscle through the rail-car allocation committee, but the Estey Report, released in December 1998, argues that the CWB should play a smaller role in this regard. Besides the CWB, several groups, including the National Farmers Union (NFU) and the Saskatchewan Wheat Pool (SWP), are challenging the Estey recommendation on grounds that it will allow the railways to set monopoly freight rates.

While these issues surrounding the CWB are debated among farmers, grain companies, farm groups, and others inside Canada, the CWB also faces threats from beyond Canada's border. U.S. farm groups and politicians from farming states have been particularly vocal in support of decreasing the power of, or perhaps eliminating, the CWB. They contend that the CWB dumps wheat and barley into the United States and world markets, depresses world prices, and, in effect, ruins the U.S. market. The United States has investigated the CWB several times for unfair trading practices. The United States General Accounting Office (GAO) conducted at least two such studies (GAO, 1996 and 1998). It concluded that the practices of the CWB are not in violation of international trade rules. The United States has also indirectly implicated the CWB in border disputes. The most recent dispute was a Canada-U.S. cattle countervail duty case, filed with the U.S. Department of Commerce in 1998. The CWB was a party to the case because the United States alleged that the CWB withholds feed barley from the United States, which creates a domestic surplus, which in turn reduces feed barley prices for prairie cattle feeders. The claim was that this subsidy gives Canadian cattle producers an unfair advantage over their U.S. counterparts. In October 1999, the CWB was found to not subsidize cattle feeders.

In the round of trade talks scheduled to begin in late 1999, state trading enterprises (STEs), such as the CWB, will face serious challenges. The World Trade Organization (WTO) is expected to look more closely for violations of international trade rules by STEs. Studies are surfacing on this question (for example, Dixit and Josling, 1997), but the studies specific to the CWB (Schmitz and Furtan, 1998; Schmitz et al., 1999) contend that the CWB does not violate WTO guidelines on STE trade activities. The CWB's practice of price discrimination (that is, charging different prices

in different markets, which it carries out without the use of subsidies), is allowable under WTO rules.

The world of grain farming and selling is by no means simple, old-fashioned, or romantic. The grainfield is sown with politics. The grain trade issues are, at least, 75 percent political. (We leave it to the reader to figure out how that percentage is determined!) Typical of political debates, the task of separating rhetoric, misinformation, and propaganda from the basic economic issues of marketing efficiency is difficult. This book attempts to do just that: it separates myth from reality regarding the CWB and its marketing system.

In this book, we outline Canada's position in the world wheat and barley markets, and CWB's role relative to multinational grain companies (MGCs) and STEs. The regulatory framework for the transportation, handling, and marketing of grain is put in perspective. We analyze the influence of United States and European Union (E.U.) agricultural policies, and of WTO rules, on the CWB and assess the Canada-U.S. grain-trade disputes. The Charter Case, in which farmers and other groups challenged the CWB's monopoly, is highlighted. We evaluate the CWB's overall economic performance using several measures (for example, price premiums and market shares, price flexibility options, and marketing of non-Board grains, such as flax and canola). Dual-marketing options are contrasted to compulsory marketing.

## **POLITICS, SPECIAL INTEREST GROUPS AND ECONOMICS**

The support for, or opposition to, the CWB has a long tradition among the various groups of grain producers, traders, and farm organizations. With almost complete certainty, we can determine which groups support the CWB and which do not. Advocates of the CWB's demise as a single-desk seller of Canadian grain include the Western Canadian Wheat Growers Association (WCWGA), the ABC, and the WCBGA. Supporters of the CWB have included the Canadian Federation of Agriculture (CFA), the NFU, the Saskatchewan Association of Rural Municipalities (SARM), the Manitoba and Alberta Wheat Pools (merged into Agricore), and the SWP.

Of the three pools, the SWP (the largest grain handler) had been the most vocal supporter of the CWB as a single-desk seller and shipper of grains. However, the SWP went public on the Toronto Stock Exchange in 1995. Its ownership segregated into A-class shareholders (active farmers) and B-class shareholders (investors). Since then, some claim that the SWP has become more concerned with the value of its shares than with playing the role of policy advocate, which includes supporting the CWB. If the SWP now calls for a reduction in the role of the CWB, perhaps its change of heart is derived from the desires of its investors who want a combined profit from SWP activities that go beyond the scope of grain handling.

The political ideas and behaviors of pro- and anti-CWB groups are highly predictable concerning any issue in which the CWB is involved. It was a surprise to no one that the WCWGA supported the Estey Report's recommendation that the CWB be removed from grain transportation, or that the report was opposed by the NFU. The WCWGA gave no support to the CWB in its lawsuit against the railways, although other

groups, such as SARM, did. Pro-CWB groups offered no support for the dual-marketing ideas proffered by the WCWGA, the WCBGA, and the ABC. In the initial stages of the Charter Case (Archibald, 1994), the ABC and the WCBGA lined up behind the plaintiffs as foes of the CWB. In this clash of political/economic ideologies, the distinction between friend and enemy is glaring.

In the charged debate over the CWB, it is crucial to recognize that some very deep pockets fund many of the academic studies and political activities of special interest groups. These deep pockets want to be even deeper, and they see the CWB as the main obstacle to corporate profits. For example, U.S. interest groups push to dismantle the CWB by any means necessary, and that includes lobbying the WTO. Whether or not their arguments are based on some economic analysis is another matter. The political goal is to persuade everyone that U.S. farmers would be better off should the CWB go the way of the dinosaur. Those most likely to benefit, however, include the MGCs whose financial support of cross-border studies, political action committee involvement, and special interest groups is well known. These companies want to eliminate their competition, which includes the CWB.

There is, however, a CWB-friendly group in the United States that argues for changes in the marketing of U.S. grain and for keeping the CWB in place. The North Dakota Farmers Union (NDFU) has proposed a wheat pool for marketing durum and hard red spring (HRS) wheat. North Dakota produces 85 percent of the durum wheat and 50 percent of the HRS wheat in the United States. Studies in North Dakota (for example, Koo et al., 1999) analyzed the benefits of forming a North Dakota wheat pool that cooperates with the CWB. According to Koo et al. (1999),

... if the ND Wheat Pool and the CWB cooperate with each other, the two parties can jointly determine a minimum price of durum wheat, which would be much higher than the competitive price in the North American market. This cooperation would entail the CWB restricting its durum wheat exports to the United States to an agreed level. (88)

Still, political entanglement is the preferred weapon against the CWB. The CWB must respond to attacks that often carry more rhetorical, rather than economic, weight. This siege is ongoing and time-consuming. The CWB was involved in providing testimony in legal cases, such as those against the CNR and CPR, and the Charter Case. In the first two months of 1999 alone, the CWB had to respond to the Estey Report, the American live cattle countervail case, and the Parsons-Wilson Report.

One change to the CWB that is welcomed by most parties is the transformation, in 1999, of the CWB from its commission structure to its more corporate structure, which includes a board of directors and a president/chief executive officer (CEO). The 1997 amendment to the Canadian Wheat Board Act called for a board of directors composed of ten farmer-elected members from districts in the CWB-designated area, four members appointed by the federal government's order in council, and a CEO appointed by the minister responsible for the CWB, for a total of fifteen. A CEO replaced the original commissioner structure. (Under the commissioner structure, the operations of the CWB were under the direction of a chief commissioner, an assistant chief commissioner and up to three other commissioners. The CWB advisory board, elected by producers under the commissioner structure, was disbanded.) The



amendments to the Canadian Wheat Board Act render the CEO responsible for all CWB operations; the CEO reports to the CWB's Board of Directors. This change in the Canadian Wheat Board Act gives farmers control over the agency's operations. However, a difference between the operations of a marketing board and that of the CWB is that the minister responsible for the CWB appoints the CEO, in consultation with the Board of Directors.

Despite changes to the CWB's structure, some critics continue to blame the Board for incompetence, especially when prices fall. For them, the CWB's effect is worse than any natural disaster. As of February 1, 1999, high quality HRS wheat was selling for less than CDN \$4 per bushel. Some American farmers quoted U.S. sales at U.S. \$2 per bushel. These prices, in real terms, are worse than in the 1930s.

Editorials about the farm crisis of the late 1990s said that the good old wheat board with its secretive and monopolistic practices should be replaced so that farmers can have more freedom and responsibility to stand on their own two feet. No longer should the government be enthralled by the romantic appeal to save the farm way of life that, some claim, only hurts Canadian farmers and encourages overplanting and inefficiency. Editorials go on to say that the last time the CWB was examined seriously by Parliament was a generation ago, in 1967, when it was made permanent. Despite the recent makeover of governance of the CWB, its monopoly power is as strong as ever. Unlike other government agencies, departments, and crown corporations, the CWB has never been required to open its books to the public. Some editorials claim that the conspiratorial practices of the CWB decrease farmers' profits. They go on to say that the CWB's inability to predict, with absolute certainty, the future of the fluctuations in the world market makes it obsolete in a world of transnational capital. On April 16, 1999, a CWB press release announced that the CWB will open its books for the Auditor General of Canada in the year 2000, in response to farmers' requests to see the CWB be more open and accountable. This audit, provided for by an amendment to the Canadian Wheat Board Act, is in addition to the published results of the annual audit performed by the international accounting firm of Deloitte and Touche.

The CWB cannot cause low wheat prices. Canada accounts for less than 5 percent of world wheat production. The United States—home of several MGCs—is the largest wheat exporter. According to the United States Department of Agriculture (USDA), because of lower than expected global imports and slower than anticipated food aid shipments to Russia and other countries, projected exports for 1998/99 were lowered by 2 million tonnes. The export projections for both hard red winter (HRW) wheat (438 million bushels instead of January's 493 million bushels) and HRS wheat (260 instead of 280 million bushels) were reduced for February to reflect their sluggish export pace. "Together, these changes translate into an 80-million-bushel gain in projected U.S. ending stocks for 1998/99 over last month's. Ending stocks for 1998/99 are projected at 980 million bushels, 36 percent above 1997/98 and the largest since 1987/88. Soft red winter (SRW) wheat ending stocks are projected at 150 million bushels, the largest carryout ever" (USDA, *Wheat Outlook*, 1998). According to USDA forecasts provided at the annual USDA Outlook Conference in Washington, DC in February of 1999, grain markets are not expected to rebound any time soon. Prices are forecasted to remain at an all-time low for several years. The forces leading to

depressed markets (such as the collapse of some Asian markets) are far greater than the market impact of the CWB.

It is impossible, in this book, to deal with all of the volatile political and economic issues that surround the CWB, or the political motivations of special interest groups who seek its removal (or seek to erode its power). Nor, as economists, do we want to do so. However, we recognize, and we think readers should also recognize, that economic issues often influence politics.

One instance in which economics played a role was Mr. Justice Muldoon's 1997 ruling in the Charter Case: the testimony of several economic experts was used to rule against the plaintiffs. As the arguments in this book unfold, it will become clear where economists agree and disagree. As an example, economists for and against the CWB agree that the collapse of the world wheat economy in 1998 and in early 1999 had nothing to do with the CWB. However, in the political realm, perceptions differ. As a consequence, the CWB is continuously under attack—often for reasons that escape economists.

The abounding economic studies of the CWB, for the most part, do not take on the political conundrums directly. Studies that criticize the CWB's efficiency (for example, Carter, 1993; and Carter and Loyns, 1996), and those that dispute these criticisms (for example, Kraft et al., 1996; Schmitz et al., 1997a and 1997b), focus on the CWB's performance in terms of the impact it has on wheat and barley prices. However, such seemingly innocent economic arguments—arguments that focus on optimizing performance, not merely on the question of eliminating the CWB—often become fodder for partisan viewpoints about the inefficiency of single-desk selling and about opting out of the CWB.

Politicians and special interest groups welcome certain academic and economic arguments about the CWB. Politicians can spin economic arguments toward special interests, even if those arguments were intended to speak to farmer, not to corporate, interests. However, it is important to emphasize that economists who appear to be on opposite sides of the political debates actually agree on many economic issues. Economists generally agree that the CWB earns premiums that are greater than those obtainable under a multiple-seller scenario, especially in the world of the Export Enhancement Program (EEP), and that the CWB is not in violation of WTO rules. Where there is a major disagreement over the efficiency of the CWB is in the movement of grain from the farm to the docks. These economic debates, however, are not necessarily arguments about abolishing the CWB; instead, they are arguments meant to make sure that the CWB functions for the maximum benefit of producers.

## **A ROAD MAP**

In Chapter 2 we show the CWB's place among the many players in the world grain market. The world grain market is dominated by huge MGCs and STEs and is far from being a free- and open-market system. STEs (such as the CWB, the European Commission, the U.S. Commodity Credit Corporation (CCC), or the Australian Wheat Board (AWB)), and state trading importers (like the Japan Food Agency (JFA) and the



China National Cereals, Oils & Foodstuffs Import & Export Corporation (COFCO)) are among the largest players in the world grain trade.

While the CWB has monopoly control over the marketing of western Canadian wheat, durum, and barley, it clearly does not have such control over the world grain markets. In terms of the world production of wheat, durum, and barley, Canada is a small player, producing approximately 5 percent of the world's wheat, 13 percent of its durum, and 7 percent of its barley. However, in terms of world trade, Canada is a more significant player in these commodities. The country's market share of world trade is about 20 percent for wheat, close to 60 percent for durum, and 22 percent for barley—although these shares vary from year to year.

As the sole exporter of these three western Canadian grains, the CWB has maintained its country's wheat market share and increased its durum market share, despite difficult circumstances. The CWB has had to respond to significant changes in the world demand for wheat. For instance, the breakup of the former Soviet Union meant Canada's loss of a major wheat export customer. Fortunately, the CWB minimized the impact of this loss by developing Canadian wheat markets in Asia and Latin America—areas forecast to account for 65–70 percent of Canadian wheat exports by the year 2000. The CWB has also maintained market share through a period of substantive export subsidies employed by the United States and the European Union, which are Canada's two largest competitors. Although these export subsidies dramatically reduced grain prices to eligible customers, the CWB maintained market share and cash flow to western Canadian farmers. The CWB monopoly has enabled Canada to maintain its market share while the United States has lost some of its share.

We discuss additional points in Chapter 2, including how the CWB conducts its domestic and international sales, and the changing importance of the former Soviet Union and China as wheat importers. For example, we highlight the significant decrease in imports by the former Soviet Union, and the drastic reduction in wheat imports by China. The emergence of high-yielding wheat varieties is also discussed.

Chapter 3 presents the regulatory framework governing the Canadian grain industry. This chapter clears up many of the misunderstandings regarding the function of the CWB in transporting, handling and marketing of grain. The CWB, the Canadian Grain Commission (CGC), and others, function within this regulatory environment to ensure Canada's worldwide reputation for producing and marketing high-quality grains to both domestic and foreign buyers. Components of the Canadian grain-marketing system, such as varietal control, contribute to the premiums the CWB realizes from its customers. However, as a single-desk seller of western Canadian wheat, durum, and barley, the CWB provides a mechanism for capturing and returning to farmers the premiums attainable from selling quality products. Studies critical of the CWB often attribute costs, such as country elevator tariffs, to the CWB, although these tariffs are not set by the CWB but by the elevator companies themselves.

The single-desk selling concept of the CWB is examined from a theoretical perspective in Chapter 4. In addition, a description is presented of the structure of the world wheat and barley trade in which MGCs play key roles. We show that producers lose under a middleman market structure, whereby a grain firm buys from producers and sells to processors. Middlemen maximize their own profits by attempting to buy

low from producers and sell high to consumers. Producers gain under a producer marketing board, like the CWB, because the Board's incentive is to maximize returns for the producers it represents. The CWB only sells the producers' grain; it does not buy it. Thus, the CWB earns no profits. As Harold and Rossmiller (1991) state: "The CWB will not take advantage of the producer, while the private grain traders have few qualms about lowering the price offered to the producer and raising the consumer price in order to increase their profit margin" (43). In the absence of the CWB, Canadian grain exports would likely be dominated by MGCs (such as those located in the United States, who now control a large volume of wheat, durum, and barley exports). We discuss how the CWB does domestic and international marketing.

In specific commodities, a few firms have a large share of the total world trade volume. For example, Louis Dreyfus, Richco, and Toepfer are principles in 70–80 percent of world trade in feed barley. In addition, Cargill Inc. and the Continental Grain Co. (which, in 1999, is undergoing a restructuring) are the largest U.S. wheat exporters.

We discuss the recent changes in government policies in Chapter 5. The 1996 U.S. Farm Bill removed both the target price and provisions. Since June 1995, the United States has not used EEP on U.S. wheat, durum, and barley. However, the United States, as does the European Union, allocates funds for export subsidies and uses these funds at the discretion of the U.S. Secretary of Agriculture. These types of government policies and subsidies indicate that there is no free and open grain market, despite claims to the contrary. Also, when evaluating the performance of the CWB by comparing American and Canadian prices, U.S. policies, such as EEP, have to be factored into the analysis.

STEs will continue to play an important part in world grain markets. Some interest groups in the United States have pressured Canada to dilute the CWB's powers, even though the GAO (1996) found no evidence of the CWB violating existing trade agreements. In Chapter 6, we discuss WTO attempts at disciplining STEs; we also discuss the multilateral trade negotiations scheduled to begin in late 1999.

For many years, few disputes existed between Canada and the United States over CWB shipments into the U.S. market, largely because little grain flowed into the United States from Canada. In fact, the United States and Canada maintained a degree of cooperation regarding wheat exports from the two countries, part of which was linked to the various international wheat agreements. All this has changed dramatically. We discuss these numerous confrontations concerning the Canada-U.S. grain trade in Chapter 7. Many of these challenges, especially those in the 1990s, were specific to CWB shipments of wheat to the United States.

Trading of wheat between Canada and the United States has existed for years. Two periods stand out: the Second World War period of the 1940s (during which Canada exported wheat into the United States); and the EEP period of the 1980s and 1990s (during which EEP raised internal U.S. grain prices, while lowering the world price and making the U.S. market more attractive for the CWB).

Canadian exports of durum to the United States have been the subject of several investigations. One investigation by the International Trade Commission (ITC) found that Canadian durum prices were higher in Canada than they were in the United

States. Later, the ITC undertook another investigation, and the United States demanded that Canada agree voluntarily to restrict durum exports to the United States. Quotas and tariffs were set and agreed upon, but expired on September 1, 1995. Resulting from the North American Free Trade Agreement (NAFTA) and the WTO, the United States is no longer in an internationally legal position to impose border measures on non-injurious Canadian wheat imports.

Canadians and Americans have different perceptions about the grain disputes. Many of the CWB supporters in Canada contend that EEP was the major factor driving Canadian grain exports to the United States. Many U.S. producers and farm groups argue that the CWB subsidizes wheat exports to the United States. (The latter view was not unanimous.) Some Americans have argued that the United States has no grounds for attempting to stop grain exports from Canada. If, for example, Canada is dumping wheat into the United States, then it must follow that the United States also is dumping into other markets once it exports wheat at a price below the full cost of production.

Various arms of the U.S. government have randomly investigated the CWB at various times, yet each time the CWB was discovered operating within the law and in the spirit of fair trade. Unfortunately, this has not diminished criticism from many U.S. producer groups, or from the USDA. Ironically, while the CWB's export monopoly remains a trade irritant, its removal would expand the volume of so-called free-trade grain that would enter the U.S. market from Canada—it would not reduce it.

In 1998, the United States launched an investigation into live cattle exported from Canada into the United States. The investigation contended that the CWB was subsidizing Canadian cattle-feeding operations with, what the United States called, cheap barley. Even in cases like this, in which the CWB's involvement is indirect, the Board finds itself immersed in political and economic battles under the guise of legal battles between Canada and the United States. In early 1999, the U.S. Department of Commerce, which investigated the allegations by the U.S. cattle producers, came down with a preliminary ruling in favor of Canada. A final ruling in favor of Canada was made in October 1999.

Barley, along with wheat, has always been center stage in Canada's grain-industry debates. In the early 1970s, in the presence of severe criticism, the Honourable Otto Lang removed, for example, the CWB's monopoly control over the domestic marketing of feed barley. Consequently, a dual feed barley market exists in Canada in which a producer can sell either to the CWB or to local users. Chapter 8 focuses on the barley debate itself. Since the introduction of a dual market for domestic feed barley in the early 1970s by the Honourable Otto Lang, two new debates about barley marketing have occurred. The first was the proposal of the Honourable Charles Mayer to create a CBM with a multiple-seller environment for feed and malting barley. The second was the Honourable Ralph Goodale's call for a vote on a dual market structure for barley. The CWB survived both challenges. The CBM created by the Honourable Charles Mayer on August 1, 1993 was rescinded by a federal court ruling on September 10, 1993. The vote for a dual market in barley, in early 1997, favored the status quo by a wide margin.

During the barley debate, academic economists entered the arena using economic arguments to support, or reject, a dual marketing structure for barley. At least four

major studies were completed: Carter, 1993; Carter and Loyns, 1996; Schmitz et al., 1993; and Schmitz et al., 1997a. The first two are highly critical of the CWB, while the latter two generally support the CWB operations with the caveat that the CWB must continue to innovate and change in the presence of ever-changing markets and institutions. These latter two studies generally found that the CWB earned significant price premiums on malting barley. Carter and Loyns (1996) argue that even when the CWB earns premiums, it is so inefficient that prices at the farm gate are below what they would be in a full-blown dual market. Schmitz et al. (1997a and 1997b), however, argue that these costs are greatly overstated and that many cannot be attributed to the CWB operations.

Chapter 9 looks at the Charter Case. In June 1994, Archibald and several other farmers, along with the Alberta Barley Commission and the Western Canadian Barley Growers Association brought litigation against the CWB. They argued that the Canadian Wheat Board Act "breaches the rights" of the individual plaintiffs under the Canadian Charter of Rights and Freedoms (Archibald, 1994). The trial took place in the federal courthouse in Calgary during the autumn of 1996. The Sugimoto and Company Law Firm from Calgary represented the plaintiffs; the Canada Department of Justice defended the CWB.

On April 11, 1997, Mr. Justice Muldoon of the Federal Court of Canada ruled in favor of the CWB on the grounds that: (1) the Canadian Wheat Board Act does not breach any of the rights of the plaintiffs; (2) the Charter of Rights and Freedoms does not protect the individual's economic or commercial aspirations; and (3) the Canadian Wheat Board Act and the Board's monopoly are valid in law. According to Mr. Justice Muldoon, the Charter is not the proper instrument "to fix what is quintessentially a political problem." Mr. Justice Muldoon concluded (Archibald, 1997):

In Canada's free and democratic society, Parliament, with its undoubted power to make laws within the class of subject of trade and commerce, must remain free to fix what is quintessentially a political problem by freeing or regulating the market, virtually as it and the government see fit. The CWB is an instrument of State regulation of the inter-provincial and export market of grain produced in the designated area. Tomorrow, a differently constituted Parliament and government might decide in terms of economic policy, to de-regulate the market, and again in the future Parliament, directed by the elected government of that day, might yet again decide to re-regulate that market. Such decisions are for Parliament and not for the Court, so long as Parliament infringes no Charter rights, or if it does, so long as the infringement be demonstratively justified, or if a constitutional imperative exacts the unimpaired integrity of a head of legislative power. (79-80)

Mr. Justice Muldoon supported the defense because: (1) the Canadian Wheat Board Act was not legally in violation of the Charter of Rights; (2) there were strong economic arguments that the CWB was serving farmer interests well; and (3) if the CWB was replaced by a dual market, the latter would eventually give rise to a completely open-market system.

To understand grain marketing one must also understand grain transportation. This is the focus of Chapter 10. Canada's grain-producing regions are farther from export position than are their competitors. Producers face large grain transporting and handling costs, and these comprise about one-third of the grain's port price. Canada

has only two main-line railways, which raises concern about each firm's market power. The two railways, the CNR and CPR, have been the subject of intense debates and lawsuits concerning their efficiency and their impact on prairie grain farmers (Fowke, 1957).

As a grain marketer, the CWB is responsible for delivering a certain quantity and quality of grain to a buyer at a specific time. Since the CWB maximizes returns to producers for their grain, it wants to minimize the costs involved in getting grain to the export position. Problems within grain transportation and handling result in demurrage charges and in lost sales. Therefore, to fulfill its mandate to producers, the CWB needs to have transportation and handling systems that are both efficient and effective. Historically, grain transportation and handling (and, before the creation of the CWB, grain marketing) have been highly concentrated industries, raising concern about market power. In part, because of farmer concerns about their lack of bargaining power with elevators and railways, the industries have been highly regulated.

The regulatory framework that governs the railways is ever-changing (for example, in 1995, the railway subsidy for moving grain was removed, and, in 1996, a new act regulating railway activity was passed). In addition, the relationship between the CWB and the CPR and CNR is constantly in a state of flux. In 1997/98, the CWB emerged as a vehicle to represent growers against the unfair practices of these railways. The CWB flexed its muscles against the railways in a situation in which an individual grain farmer would have had little success. As of March 1999, the CWB had settled with both the CNR and the CPR to the benefit of the producers.

The CWB has a number of roles in the transportation system. For instance, it calls grain forward to the elevators to meet sales requirements, and instructs the grain companies (as agents of the Board) to pay out the CWB initial wheat payment to the producers when the producer delivers grain. The Board is also in charge of allocating rail cars for their grain in the various zones across the Prairies.

Chapter 11 examines the economic performance of the CWB. The Western Grain Marketing Panel (WGMP, 1996) concluded that, for the same quality of grain, the CWB obtained higher prices than its four largest competitors—the United States, Argentina, Australia, and the European Union. In addition, Canada was rated first in terms of intrinsic quality, cleanliness, consistency, technical support, long-term dependability of supply, and customer service. Canada tied with Australia for the top position in efficiency of contract execution.

The CWB invests in market development activities that promote wheat, durum, and barley sales. It also has undertaken many new endeavors to keep abreast of new market developments and to enhance farmers' returns. The CWB must compete with other sellers of grain in the world markets. Its ability to capture price premiums is based upon many factors. These factors include the Board's ability to price discriminate, to take advantage of the risk management strategies of importers, and to differentiate (through quality and customer service) the Canadian product from the competitors' products. These advantages, and the premiums, would be lost in an environment that would include competitive sellers of western Canadian grain.

Chapter 12 discusses the marketing of flax and canola in order to get a better perspective of how the CWB can achieve price premiums and eliminate inefficiencies



when marketing its grains. It shows that marketing costs for these non-Board grains exceed the costs for barley and wheat. In addition to the price premiums the CWB provides to western Canadian farmers, the costs incurred by wheat producers to market their grain through the CWB are less than the costs incurred by flax and canola farmers to market their product through the open market. During the 1990/91–1993/94 period, the adjusted risk management premium for canola was CDN \$9.38 per tonne. Flax was much higher at CDN \$17.00 per tonne, while the CWB risk management costs for wheat were only CDN \$3.85 per tonne. These results are consistent with what one would expect from a marketing organization that operates on behalf of farmers relative to the wholesaler who is trying to maximize the margin between the purchase price and selling price of a commodity.

The CWB's ability to introduce additional price and marketing flexibility is discussed in Chapter 13. In October 1994, in response to producer challenges to the CWB system, the Canadian government commissioned a panel, the Western Grain Marketing Panel (WGMP), to examine western Canada's grain and oilseed marketing systems. The WGMP findings, released in July 1996, recommended ways to make the CWB's marketing strategies more malleable. Eventually embodied in Bill C-4, these recommendations permit flexibility in the pricing of, and payments for, CWB grains. The WGMP also suggested that the CWB consider cash payments, issue negotiable final payment certificates, and allow farmers the option of pricing wheat through fixed price contracts on the Minneapolis spot market.

When examining the feasibility of any of the suggested flexible price options, we explore how other organizations currently offer producers pricing arrangements that include pooling as one of several alternatives. We ask if such a model is applicable to the CWB. One such example of this model is Calcot Ltd., an extremely effective cooperative that markets California and Arizona cotton and provides such pricing flexibility to its producers. In addition to its seasonal pool (a rough equivalent to the CWB pool account), Calcot offers producers both a call pool and a spot-fixation program whereby producers can hedge their cotton through Calcot on the New York Cotton Exchange. Part of this report focuses on futures trading, which is a complex area of marketing that requires highly specialized futures trading personnel. If forward-price contracts were offered via hedges on U.S. futures markets, the CWB (and several of the grain companies) would have to increase their staff to supervise the risk management trading desks. Expertise in futures trading would be crucial!

One of the major criticisms levied against the CWB is that it has not provided a forward-pricing mechanism for wheat whereby an individual farmer can lock in a price before planting. This feature is available for the marketing of many non-Board grains, although it is not extensively used. This chapter draws out the implications of providing such an option, and emphasizes that there may be substantial associated risk premium charges. Clearly, the implications of using futures markets for marketing CWB grains are much different than using one of the many other options, such as a cash buyout.

The dual marketing debate is explored in Chapter 14. In the Charter Case, and in the debate surrounding the WGMP, the concept of a dual market has been a contentious issue. Under a dual system in Canada, multiple sellers would cause the price premiums earned by the CWB to disappear. Moreover, marketing costs would

increase for wheat, durum, and barley, and the CWB would have problems sourcing grain. This would make long-term sales difficult. In the long run, dual marketing is not a viable system for the western Canadian grain producer.

Chapter 15 concludes that although the CWB has won many of the battles to date, and has generated gains for producers over those gains possible under a multiple seller situation, it must be continually open to change. That the CWB could work better is beyond a doubt, but criticism needs to be rigorous, and it needs to take account of the complexity of the issues surrounding the CWB.

Debates on the performance of the CWB will undoubtedly continue into the future. Performance measures in the past have included U.S.-Canada price comparisons. When comparing American and Canadian farm-gate prices, however, U.S. prices do not always come out higher, especially when EEP is correctly factored into the equation. Canadian prices are often higher than American prices. For example, feed barley prices in Canada in 1998 and 1999 generally exceeded those in the United States. Even so, it is important to stress that price comparisons between the United States and Canada do not provide conclusive evidence that the CWB is an inefficient organization. Many variables, including the role of agricultural policy, must be adequately factored into any analysis. For example, in the United States, market prices for wheat have little to do with prices received by producers. U.S. farm policy has provided significant payments to producers which take various forms, including deficiency payments.





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## CHAPTER 2

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### **THE CWB: COMPETING WITH MAJOR PLAYERS IN THE WHEAT AND BARLEY TRADE**

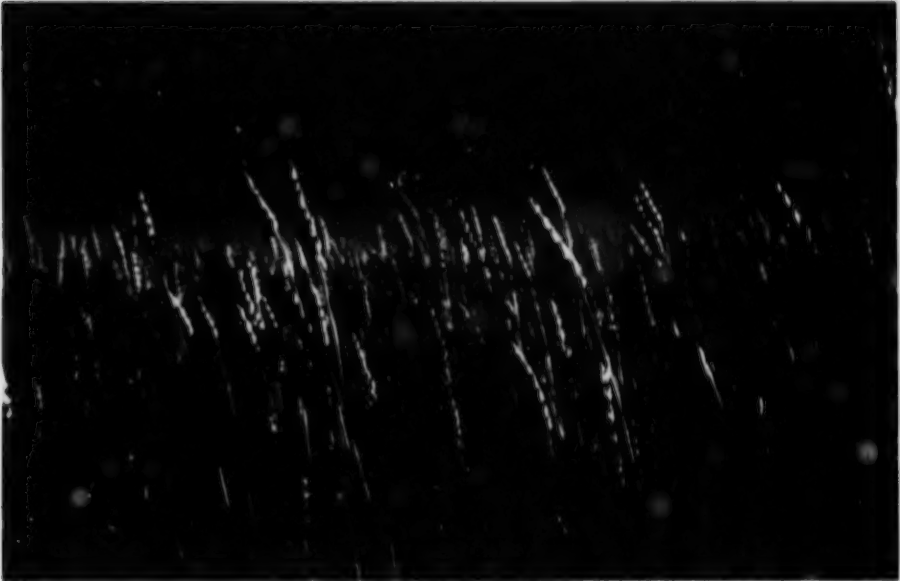


Photo by John Dietz; courtesy the Canadian Wheat Board.

*Wheat is a major crop grown on the Canadian Prairies.*

*The CWB is among the largest and longest standing public export marketing agencies in the world. The CWB is a monopoly seller of wheat and barley into the domestic market (for human consumption) and world markets. The CWB sells grain into an ever-changing market. In this market, the CWB is only one of many players. Thus, although the CWB has monopoly control over certain aspects of the Canadian grain trade, it does not have monopoly control over the world grain market into which it sells.*

— A. Schmitz (1996)

*China's imports tumbled from 15.8 million tonnes in 1991/92 to 6.8 million tonnes in 1992/93, as that country drew on domestic stocks to meet demand. Although Canada's exports were halved, Canada still retained a 50 percent share of the Chinese wheat market. The decline in exports to these traditional customers was largely offset by higher exports to South Korea, Algeria, Indonesia, Pakistan, South Africa and the United States.*

— CWB Annual Report (1992/1993)

## HISTORICAL BACKGROUND

**T**he early history of government intervention in the Canadian grain trade has been well described by Schmitz and McCalla (1979):

The first Canadian Wheat Board... arose largely because of the need to institute wartime measures. During World War I, as a result of a centralized allied purchasing agency, a centralized selling agency—the Board of Grain Supervisors—was established in Canada in 1917. Between September 1917 and July 1919, the Board of Grain Supervisors was the sole marketing agency for Canadian grain. At the end of the war, continued uncertainty in the world market caused the Canadian government to establish for the 1919/20 crop year the first Canadian Wheat Board, which operated on an initial payment and price-pooling basis. But the Canadian government did not want to be in the grain business, and the board ceased operations after that year.

Having failed to gain a government marketing pool, prairie farmers turned to the establishment of major cooperatives in each of the three prairie provinces that, by 1929, were marketing over half of prairie grain.<sup>1</sup> The pools banded together to establish a Central Selling Agency, which marketed directly to domestic and international markets. In 1929 the pools offered an initial payment, which was soon substantially above market prices. It attempted to hold grain, therefore raising prices; but prices continued to fall, and the pools were on the verge of bankruptcy. First guaranteed by provincial governments in 1929 and later by the federal government in 1930, the pools became dependent on government loans to maintain their operations. In return, the federal government appointed a manager to run the Central Selling Agency. By 1935, most of the stocks accumulated by the pools were disposed of, and the federal government again tried to get out of the grain business. Farmer pressure, however, led to the establishment of a second Canadian Wheat Board as a voluntary agency that offered alternatives for farmers when the free market once again opened.

In the years 1935 to 1938, board prices were below market prices; hence, it did not market large quantities of grain. However, in 1938/39, world prices fell, and the board bought the entire crop. World War II ensued, and in 1943, as a wartime measure, the Canadian Wheat Board was made a mandatory monopoly marketing agency for prairie wheat. In 1949, barley and oats were added to the board's authority. (80–81)

Many changes have occurred in the structure of the CWB since the late 1940s. Oats were removed from the CWB's jurisdiction, and a dual market for feed barley was introduced. Other changes included contracting between growers and the CWB, and the removal of the two-price wheat system. The Canadian government also changed the management structure of the CWB. Prior to this period, the CWB had five commissioners appointed by the Canadian government. The commissioners reported to the House of Commons via the minister responsible for the CWB. One commissioner was appointed chief commissioner and one commissioner was appointed assistant chief commissioner.

The amendment to the Canadian Wheat Board Act, passed in 1997, put in place a board of directors in lieu of the commissioner system. The Board of Directors has fifteen members: ten farmer-elected members from districts in the CWB's designated area; four members appointed by the order in council; and a CEO appointed by the minister responsible for the CWB. The CEO is responsible for all CWB operations, and reports to the Board of Directors. The senior division heads of the CWB remain in place to perform their usual functions and duties. The CWB advisory board has been eliminated. This change to the Canadian Wheat Board Act gives farmers some control over the agency's operations. However, one difference between the usual operations of a marketing board and the CWB is that the minister responsible for the CWB appoints the CEO, after consulting with the Board of Directors.

The CWB is a marketing agency. It owns no physical facilities for farming, handling, storing, or transporting grains (except for approximately 2,000 hopper cars). It employs the services of grain-handling cooperatives, private elevator companies, and railways.

The CWB is incorporated with the objective of marketing grain grown in Canada for interprovincial and export trade in an orderly manner. On many occasions the CWB has also stated that it is their objective to maximize returns to producers. For example, the 1992-93 CWB *Annual Report* reads as follows: "*New Corporate Blueprints: Mission.* The Canadian Wheat Board markets quality products and services in order to maximize returns to Prairie grain farmers." (13). Also, Sorenson et al. (1991) state:

The mandate of the CWB is to maximize returns to prairie producers from grain sales; to provide prairie grain producers with price stability within the year; and to ensure that each grain producer gets a fair share of the available market returns each year. (39)

Under the Canadian Wheat Board Act, the CWB is neither an agent of Her Majesty, nor is it a crown corporation within the meaning of the Financial Administration Act.<sup>2</sup> The CWB, as a shared governance corporation, possesses the following powers:

- it can buy, take delivery of, store, transfer, sell, ship or otherwise dispose of grain;
- it can enter into contracts or agreements for the purchase, sale, handling, storage, transportation, disposition or insurance of grain;
- subject to the approval of the Minister of Finance, it can enter into commercial banking arrangements.

The CWB markets most of the wheat produced in western Canada. More than 90 percent of the wheat enters the primary elevator system; the rest is used for feed or seed on farms, or is sold locally. More than three-quarters of western Canadian barley

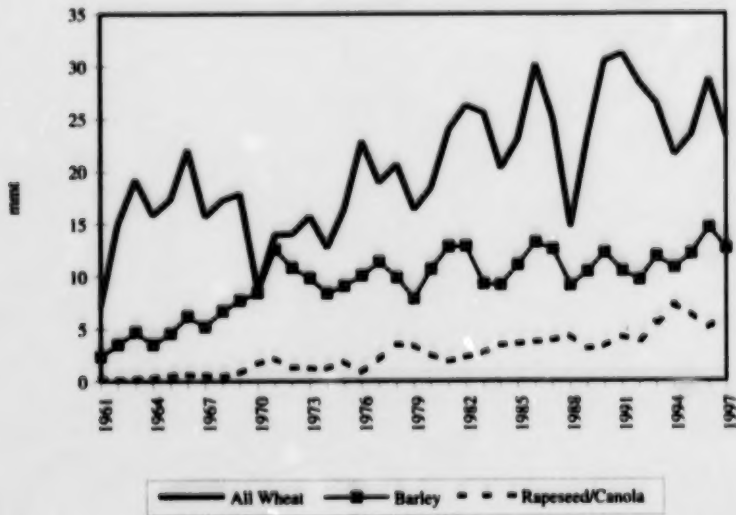
remains outside the elevator system, either fed on farms or sold directly to feedlots. Approximately 10–20 percent of the barley produced is marketed by the CWB, the largest percentage of which is malting barley.

Wheat is the major commodity of the CWB, making up more than 80 percent of total Board sales. Wheat is also the most important grain crop in terms of acreage planted in western Canada (Figure 2.1). The CWB plays an important role in the western Canadian grain economy. However, the CWB does not market other crops grown in western Canada, such as canola, flax, mustard, and other specialty crops. With the exception of canola, these crops are less significant in the western Canadian grain economy.

It is important to put into perspective the value of the CWB's selling activity (Table 2.1). CWB sales of wheat far exceed its sales of durum and of feed and malting barley. For example, in 1994/95, barley sales by the CWB were only 12.8 percent of wheat and durum sales.

The CWB is only one of many players in the world grain market. In selling wheat and barley on the international and domestic markets, it must compete with large MGCs, grain traders, domestic millers, cooperatives and non-CWB state-trading exporters and importers. In terms of world production, Canada produces approximately 5 percent of the wheat, 13 percent of the durum, and 7 percent of the barley. However, Canada is a more significant player in terms of world trade in these commodities. For example, Canada has almost 60 percent of the world durum export market.

Figure 2.1 Western Canadian Grain Production, 1961–1997



Source: CWB Annual Reports, various years.

**Table 2.1** Producer Grain Deliveries to the CWB, and Sales Value of Wheat, Durum, Feed Barley and Designated Barley, Crop Years 1989/90–1996/97

Year	Wheat		Durum		Feed Barley		Designated Barley	
	Deliveries 1,000 tonnes	Sales value \$1,000,000	Deliveries 1,000 tonnes	Sales value \$1,000,000	Deliveries 1,000 tonnes	Sales value \$1,000,000	Deliveries 1,000 tonnes	Sales value \$1,000,000
1989/90	16,682.88	2,968.73	3,498.75	576.60	3,067.09	349.90	843.50	170.70
1990/91	22,196.62	2,492.12	3,418.37	377.32	4,127.25	391.66	1,455.00	216.85
1991/92	19,324.86	2,673.35	2,795.24	379.80	1,994.57	221.35	1,684.14	229.41
1992/93	22,820.30	3,403.41	3,371.02	520.83	3,328.09	360.75	918.89	143.12
1993/94	17,522.22	2,633.63	3,623.11	764.76	2,362.48	247.80	1,727.92	227.25
1994/95	14,640.66	2,919.77	4,066.12	1,039.29	1,059.65	120.31	2,260.24	392.14
1995/96	14,352.45	3,812.10	3,973.38	1,130.36	1,267.78	266.62	2,549.51	620.03
1996/97	19,756.58	4,230.90	3,882.85	962.79	2,440.10	385.97	2,402.09	530.87
1997/98	15,201.11	3,087.70	3,937.89	1,118.37	261.96	32.50	2,267.42	443.99

Source: CWB Annual Reports, various years.

## INTERNATIONAL MARKETS FOR CANADIAN WHEAT AND BARLEY

### NON-DURUM WHEAT

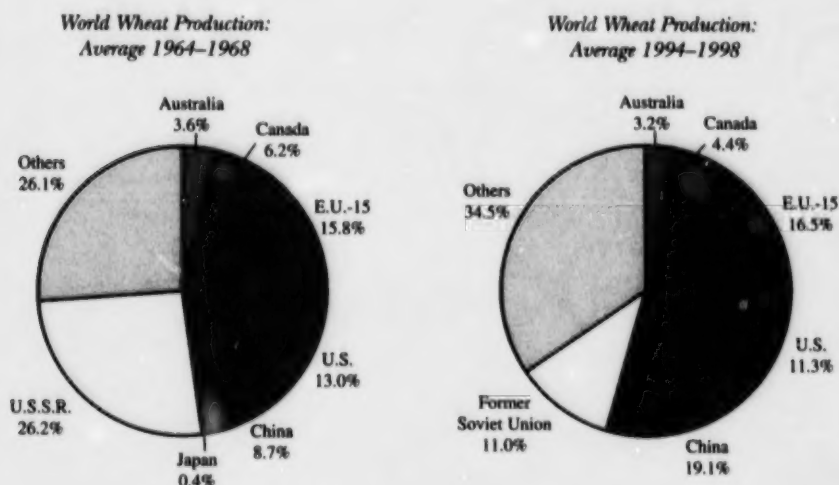
Both world wheat production and utilization increased during the past thirty years, at a rate of about 2.5 percent per year. For example, in 1989, world wheat production was in the neighborhood of 525 million tons, while in 1997, production exceeded 600 million tons (USDA, *Wheat Outlook*, 1998).

The bulk of the world's wheat production is concentrated in relatively few countries: China, the United States, India, the former Soviet Union, and the European Union. In 1997/98, China produced 124 million tons of wheat, more than 20 percent of the world's total wheat production.

There have been major shifts in wheat production (Figure 2.2). In the 1960s, the former Soviet Union was the largest producer followed by the United States and China. In the 1990s, China was the largest wheat producer, followed by the United States and the former Soviet Union.

World trade in wheat is greater than in any other single grain and comprises approximately 95 mmt (million metric tonnes), or 20 percent of total world production. During the 1980/81 to 1997/98 period, the world trade in wheat and flour fluctuated from 80 mmt to 102 mmt (Appendix Table 2.1). While trade varied from year to year, no sustained growth occurred.

Almost 20 percent of world wheat production is traded internationally each year. Historically, China and the former Soviet Union, combined, were the largest importers.

**Figure 2.2 World Wheat Production: Average 1964–1968 Compared to Average 1994–1998**

Source: FAO Agricultural Statistics Database.

However, during the 1990s, imports by Russia and the former Soviet Union declined considerably, from 22.9 mmt in 1991/92 to 6.0 mmt in 1997/98. From a Canadian perspective, the growth markets are in the Asia-Pacific and Latin American regions, which are forecast to purchase 66 percent of Canadian wheat by the 1999/2000 crop year (Appendix Table 2.2).

The United States is the largest exporter of wheat, while Argentina and Australia have the smallest market share (Appendix Table 2.3). Beginning in 1988/89, with the exception of 1991/92, the European Union had a greater market share than Canada. The U.S. share of trade dropped in the early 1980s; since 1985, however, this share has recovered somewhat because of large EEP subsidies. Nevertheless, export shares recently have dropped: the United States had less than 30 percent of the wheat export market for 1996/97. The major wheat exporters are given in Figure 2.3. The European Union increased its export market share largely at the expense of the United States.

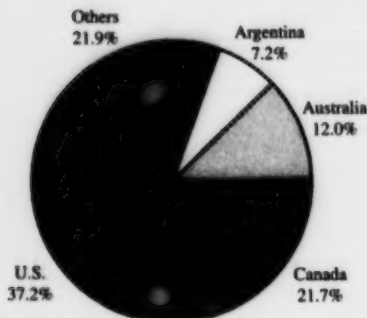
EEP was introduced in the United States in 1985 as the result of the slow growth of U.S. sales into world markets. In some years, for example, between 1986/87 and 1992/93, more than one-half of the world trade took place in markets eligible for EEP subsidies. When these markets were added to those eligible for the European export restitution payments, as much as 80 percent of the world trade involved the use of export subsidies.

Direct human consumption of wheat continues to increase steadily—by about 5 mmt per year—as the result of population growth and of changing dietary patterns.

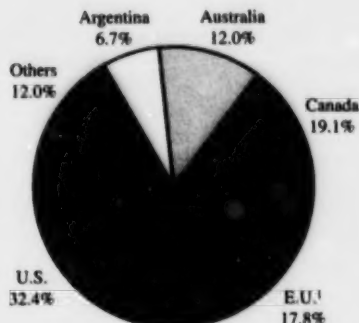


**Figure 2.3 World Wheat Export Market Shares: Average 1964–1968 Compared to Average 1993–1997**

*World Wheat Export Market Share:  
Average 1964–1968*



*World Wheat Export Market Share:  
Average 1993–1997*



<sup>1</sup> E.U. includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.

Source: CWB Annual Reports, various years.

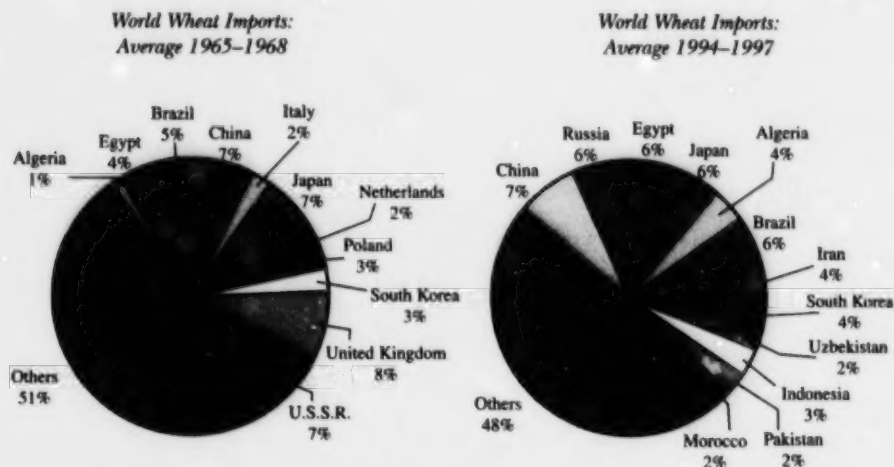
Changing dietary patterns are most profound in some of the lesser-developed Asian countries, although per capita wheat consumption for food is also increasing in the United States, in Europe, and in other western economies. This general trend has not always been the case for wheat used as feed grains. The world's use of wheat as a feed grain declined from 1991/92 through 1994/95. However, this trend was reversed in 1995/96 because of rapidly increasing U.S. corn prices.

World wheat stocks fluctuate greatly from year to year. World wheat ending stocks for the 1995/96 crop year were at their lowest level in twenty years (USDA, *Wheat Outlook*). Stocks were drawn down to 97 mmt, a drop of 48 mmt from 1992/93. The world wheat stocks-to-use ratio was roughly 18 percent for 1995/96 and was the lowest on record. This situation changed drastically in the late 1990s. At the end of 1998, U.S. wheat stocks alone exceeded 25 mmt (Appendix Figure 2.1).

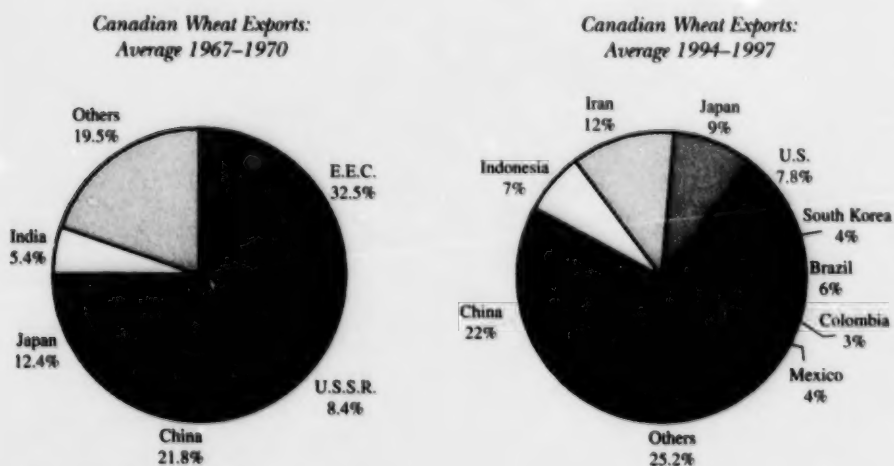
World wheat imports by major countries are given in Figure 2.4. What is striking is the change in the trade status of Western Europe. In the 1960s, the United Kingdom and Italy were large importers. This is no longer the case in the 1990s.

The major importers of wheat from Canada can be seen in Figure 2.5. Note that for the 1967 through 1970 period, the largest importer was the European Economic Community (E.E.C.) at 32.5 percent, followed by China at 21.8 percent. This picture changed drastically for the 1994 through 1997 period. China became the leading importer at 21.6 percent, followed by Iran at 11.6 percent.



**Figure 2.4 World Wheat Imports: Average 1965–1968 Compared to Average 1994–1997**

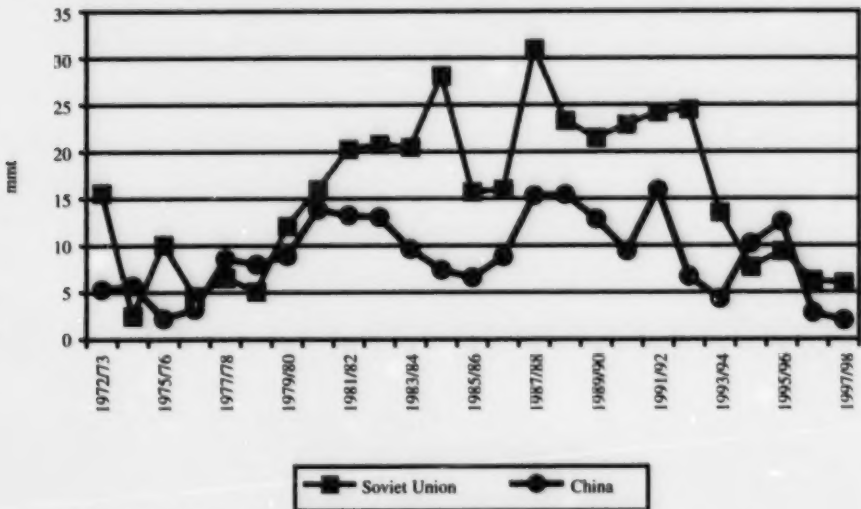
Source: CWB Annual Reports, various years.

**Figure 2.5 Canadian Wheat Exports: Average for 1967–1970 Compared to Average for 1994–1997**

Source: CWB Annual Reports, various years.

**Former Soviet Union and China:** Grain markets are ever-changing. Canada relies less heavily on the centrally planned economies (CPE) as major buyers than it did in the past (Figure 2.5). Not only has the former Soviet Union market shrunk considerably for Canadian wheat imports, but it is also very volatile (Figure 2.6). Also, China causes substantial instability in the world wheat market. For example, Chinese total wheat imports were 3.2 mmt in 1976/77, peaked in 1991/92 at 15.7 mmt, but fell to 2.0 mmt in 1997/98 (Figure 2.6).

**Figure 2.6 Wheat Imports by the Former Soviet Union and China, 1972/73–1997/98**

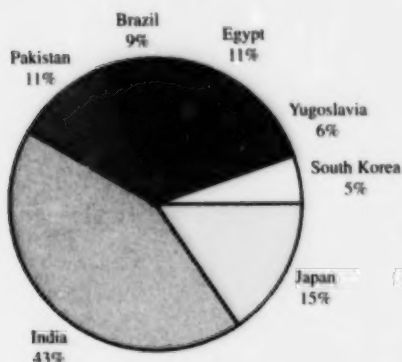


Source: CWB Annual Reports, various years.

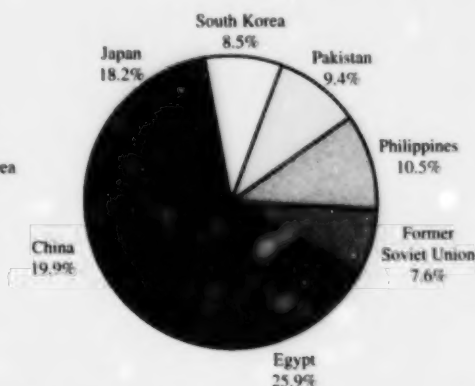
**Political Dimensions:** U.S. export markets for grains have also changed significantly (Figure 2.7). In the 1960s India was the major importer of U.S. wheat, but in the 1990s the major importer is Egypt. If it has always been assumed that Canada and the United States are the major competitors in the world wheat market, how can their markets, into which they sell, be so different? By examining who buys wheat from Canada and from the United States, one can conclude that certain markets are more influenced by government programs (such as export subsidies) than by competitive market forces. The U.S. market domination in Egypt is largely due to PL 480, which is a government aid program. Canada's ability to maintain the Iranian market hinges on U.S. foreign policy that restricts trade there. The only major markets common to both Canada and the United States are Japan, China, and South Korea.

**Figure 2.7 Top Seven U.S. Wheat Export Markets: Average 1964–67 Compared to Average 1994–1996**

*Top Seven U.S. Wheat Export Markets:  
Average 1964–1967*



*Top Seven U.S. Wheat Export Markets:  
Average 1994–1996*



Source: Canadian Grains Industry Statistical Handbook, various years.

**High-yielding Varieties:** Not only is the wheat market ever-changing, so is the product. The focus, which was once on high-protein wheats, has shifted to medium-quality wheats. Now, buyers like Japan buy high-quality wheat from Canada, while other importers, like Egypt, buy high-yielding, low- to medium-quality wheats. Because of this change in focus, Canada introduced the licensing and production of high-yielding, medium-quality varieties, such as HY320. It was licensed in 1985 as the first variety in the Canadian prairie spring wheat class.

Canada and the United States are the major exporters of high-quality wheat (Table 2.2). High-quality wheat, however, represents less than 10 percent of world wheat exports. For the years 1992 through 1996, average exports of high-quality wheat were roughly 8.4 mmt of a total wheat trade of 100.6 mmt. Projections for 2007/08 show that market share for high-quality wheat will remain at about 10 percent.

One of the early criticisms of the Canadian grain regulatory system was that it emphasized the producing and the marketing of high-quality wheat (Ulrich et al., 1986; Carter and Loyns, 1996). But how valid are these criticisms? In the 1970s, high-yielding varieties were licensed, and Canadian farmers began adopting these varieties; yet acreage has remained below 2 million and production has not exceeded 3 mmt (Appendix Table 2.4). The CWB encountered difficulty in marketing these types of wheat. Table 2.3 and Appendix Tables 2.5 and 2.6 profile selected importers of Canadian wheat: Brazil, Colombia, and Mexico, respectively. Note that even though exports of low-quality wheat have increased, they have not kept pace with exports of high-end, medium-quality wheat.

**Table 2.2 Average Sales of High-quality Wheat, 1992/93–1996/97 with Projections to 2002/03 and 2007/08**

	1992–96		Projections for	
	5-year average	Exporter share	2002/03	2007/08
<i>High-quality wheat exports</i>	1,000 tonnes	percent	1,000 tonnes	
1 & 2 CWRS <sup>1</sup> high protein (Canada)	3,295	39	4,976	5,467
U.S. high quality	4,292	51	4,525	5,126
Australian prime hard	868	10	876	1,086
Sub-total (high quality)	8,455	100	10,377	11,678
Other (all origins) <sup>2</sup>	92,195		95,123	106,322
World total <sup>3</sup>	100,650		105,500	118,000
Percent high quality	8.4		9.8	9.9

<sup>1</sup> Canadian Western Red Spring wheat

<sup>2</sup> includes wheat flour and durum wheat

<sup>3</sup> includes former Soviet Union intra-trade

Source: CWB grain trade forecast to 2007–08.

The United States has also had difficulty in marketing low-quality wheat. Soft Red Winter (SRW) wheat produced in the United States is no longer the wheat of choice for traditional foreign buyers. U.S. exports of SRW wheat declined from more than 450 million bushels in 1981/82 to below 100 million in 1998/99 (Appendix Figure 2.2). The USDA states in *Wheat Outlook* (February 12, 1999):

SRW exports are projected at 75 million bushels, down 105 million from last year. SRW exports were above 300 million bushels as recently as 1989/90, and totaled a record 460 million bushels in 1981/82. During the 1960s and 1970s SRW often moved under government aid programs such as PL480 because it was the least expensive class of wheat. Shrinking aid shipments have been a factor in the declining volume in the 1990s, and the declining importance of importing countries' government procurement agencies is also believed to be an important factor. The government procurement agencies often bought the least expensive wheat available and not necessarily the wheat that was most preferred by their millers and end-users. As the role of government procurement agencies decline, foreign millers have a greater influence on purchasing decisions, and many are now purchasing other classes that are better suited for the intended end-uses of the flour they produce. (1)

Table 2.4 and Appendix Tables 2.7 and 2.8 give data on imports of wheat by Brazil, Colombia, and Mexico from major exporters (including Canada). U.S. exports of SRW wheat to these markets are small relative to U.S. exports of HRS and HRW wheat.

**Table 2.3 Brazilian Wheat Imports from Canada by Quality, 1983/84–1997/98**

	<i>CWRS</i> <sup>1</sup>	<i>CPS</i> <sup>2</sup>	<i>CWES</i> <sup>3</sup>	<i>SWS</i> <sup>4</sup>	<i>Other</i>	<i>Total</i>
<i>Year</i>	<i>tonnes</i>					
1983/84	1,164,717	N/A	196,946	-	-	1,361,663
1984/85	963,430	N/A	151,498	-	30,369	1,145,297
1985/86	926,501	10,000	49,734	-	-	986,235
1986/87	754,697	-	25,200	-	-	779,897
1987/88	448,801	-	-	-	-	448,801
1988/89	14,280	-	-	-	-	14,280
1989/90	220,073	-	-	-	-	220,073
1990/91	382,941	-	-	-	-	382,941
1991/92	1,782,976	36,395	-	-	-	1,819,371
1992/93	1,049,033	86,567	-	-	-	1,135,600
1993/94	1,709,819	169,198	-	33,458	22,319	1,934,794
1994/95	876,665	22,407	-	26,915	3,999	929,986
1995/96	1,055,495	42,540	-	11,580	10,748	1,120,363
1996/97	729,386	14,372	7,700	-	5,251	756,709
1997/98	511,127	38,780	56,544	-	14,649	621,100

<sup>1</sup>Canadian Western Red Spring wheat<sup>2</sup>Canadian Prairie Spring wheat<sup>3</sup>Canadian Western Extra Strong wheat<sup>4</sup>Soft White Spring wheat

Source: Canadian Grain Commission, Canadian Grain Exports, various years.

**Table 2.4 Brazilian Wheat Imports from Selected Countries, 1983/84–1997/98**

	<i>Argentina</i>	<i>Canada</i>	<i>E.U.</i>	<i>United States <sup>1</sup></i>		
	<i>All wheat</i>	<i>All wheat</i>	<i>All wheat</i>	<i>HRS<sup>2</sup></i>	<i>HRW<sup>3</sup></i>	<i>SRW<sup>4</sup></i>
<i>Year</i>	<i>1,000 tonnes</i>					
1983/84	748	1,433	-	-	2,321	66
1984/85	60	1,195	51	-	3,081	67
1985/86	873	829	25	-	753	-
1986/87	973	901	398	-	647	-
1987/88	1,020	617	343	-	69	-
1988/89	750	14	-	-	-	-
1989/90	1,163	216	-	-	133	-
1990/91	22,410	305	63	-	-	-
1991/92	2,805	1,721	-	274	440	6
1992/93	4,478	1,147	2	81	70	-
1993/94	3,021	1,937	572	64	90	-
1994/95	4,691	1,071	404	-	-	-
1995/96	3,769	1,048	101	36	343	37
1996/97	3,690	729	-	-	679	86
1997/98	4,459	694	7	-	-	-

<sup>1</sup> U.S. data is June/May; all others July/June

<sup>2</sup> Hard Red Spring wheat

<sup>3</sup> Hard Red Winter wheat

<sup>4</sup> Soft Red Winter wheat

Source: USDA (United States and total) and individual exporter reports.

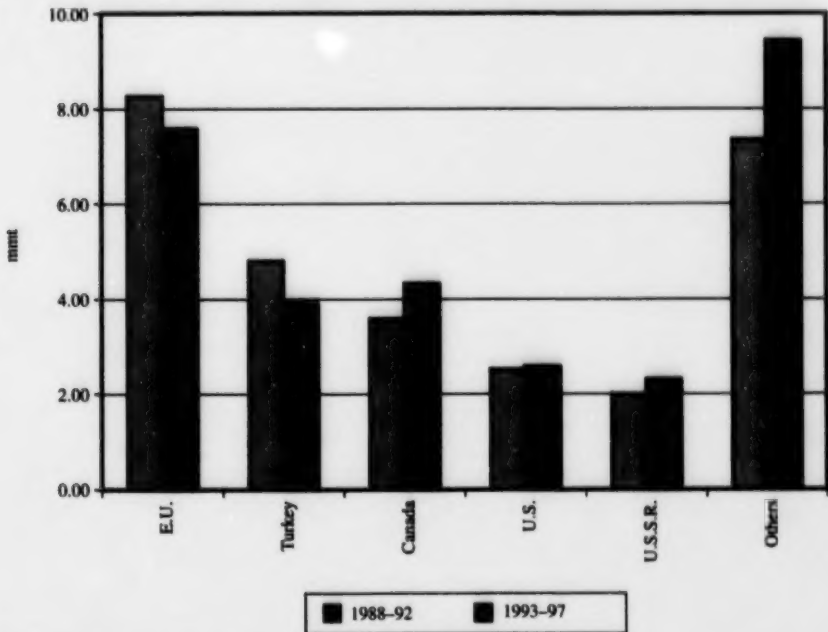
### THE WORLD DURUM MARKETS

Canadian durum wheat often receives a price premium that is above the premium received for bread wheat. Also, Canada's export market share has expanded. These are two reasons why very little criticism has been levied against the CWB over durum wheat marketing.

The main areas of durum wheat production are concentrated in the European Union, North America (the United States' north-central Plains and Canada's south-central Prairies), and in Turkey (Figure 2.8). World durum production averaged roughly 30 mmt for 1990 through 1994. During this period, the European Union's production averaged about 9 mmt (28 percent of the world production total). Turkey was the second largest durum producer at 15 percent, and Canada ranked third at 13 percent. Canadian durum production peaked in 1997/98 at 4.2 mmt (Appendix Table 2.9).

Canada and the United States dominate the world durum wheat export trade. (At times, the United States also has been a significant durum importer.) From 1990/91 through 1994/95, these two exporters accounted for more than 85 percent of the world durum wheat export trade. Canada's export market share grew significantly

**Figure 2.8 Major Durum Wheat Producers: Average 1988-92 and Average 1993-97**

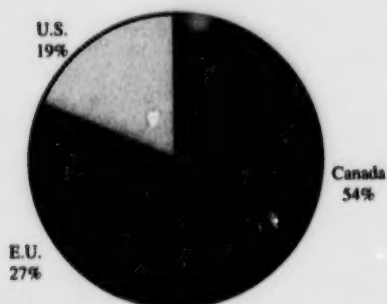


Source: CWB Annual Reports, various years.

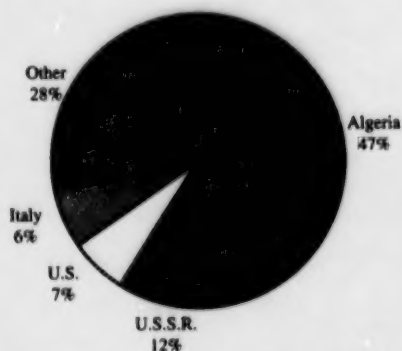
during the 1990s, to more than 70 percent of the export market share for the 1996/97 crop year (Appendix Table 2.9). The major durum wheat exporters and importers are profiled in Figure 2.9.

**Figure 2.9 Principal Exporters and Importers of Durum Wheat: Average 1988/89–1997/98**

*Principal Exporters of Durum Wheat*



*Principal Durum Wheat Importers*



*Source: Exports: Statistics Canada, International Grains Council and USDA, "Inspections for Export," various years.*

*Imports: International Grains Council, various years.*

On the demand side, Algeria dominates the world durum trade (Figure 2.9). Since 1990, Algeria, Libya, Morocco, and Tunisia have accounted for an average of 47 percent of the world durum wheat imports, or 2.2 mmt annually. Algeria played a dominant role, accounting for an average of more than 30 percent of the world durum imports. In 1994/95, for example, Canada exported about 1.9 mmt of durum to Algeria, close to 50 percent of Canada's total durum exports. The European Union and the United States also import durum wheat. From 1990/91 through 1994/95, they accounted for an annual average of 17 percent of the world's bulk durum wheat purchases. In particular, the European Union and the United States significantly impact quality premiums, for they traditionally purchase higher grades of durum wheat, primarily from Canada. Venezuela and Turkey also import significant quantities of durum wheat and account for about 250,000 to 150,000 tonnes annually. The top five importers from Canada, in order of importance, are Algeria, Italy, Belgium, the United States, and Venezuela. Canadian durum exports to Italy increased considerably in 1994/95, and made Italy Canada's second largest market of durum wheat.



## CANADA'S PLACE IN THE WORLD BARLEY MARKET

Barley is used for both feed and malting purposes. The majority of criticisms of CWB marketing focus on feed barley. The world's major barley producers are the European Union, the Russian Federation, Canada and the Ukraine (Appendix Figure 2.3). Total world barley production for 1996 was 156.1 mmt. Canadian barley production peaked in 1996 at 15.6 mmt. Canada's share of world barley production amounted to roughly 10 percent of the 1996 total. Approximately 90 percent of the world's barley production (142 mmt in 1995/96) is used for animal feed purposes. The remaining 10 percent of the world's barley production is used for direct human consumption, or is processed into malt for beer production.

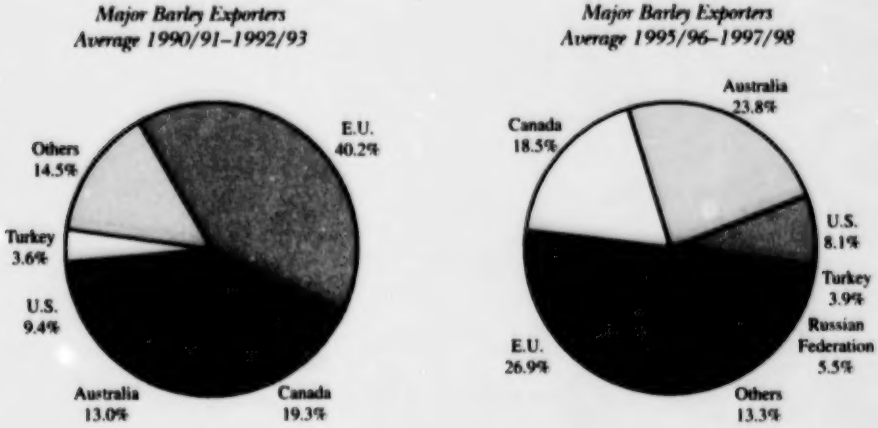
Canada has been the world's second largest barley exporter, with average annual exports of 2.73 mmt for the 1994/95–1997/98 period (Appendix Table 2.10). For the same period, world trade in barley averaged 14.8 mmt. The largest barley exporter was the European Union, followed by Canada. In 1996/97, Canada's world barley export market share was 20 percent, Australia's was 23 percent and the European Union had 36 percent. For that same year, the combined market share total for Canada and Australia was 43.1 percent. The United States has a much smaller market share than the three major exporters (for example, its export share in 1996/97 was only 7 percent).

During most of the past decade, both the European Union and the United States heavily subsidized their barley exports. This created a world market in which various importing countries paid distinctly different prices for barley on any given day, depending on whether they were eligible for EEP subsidies from the United States, or if they were traditional buyers of E.U. barley. For the 1988/89–1997/98 period, the European Union had 40.2 percent of the world export barley market, while Canada had 19.3 percent of the market (Figure 2.10). Even with large EEP subsidies, the U.S. market share remained below Canada's share. For the 1995/96–1997/98 period, Australia's share increased to 23.8 percent, while Canada's share dropped to 18.5 percent. The E.U. share of the market dropped significantly to 26.9 percent.

Five importers—Saudi Arabia, the Russian Federation, Eastern Europe, Japan, and China—accounted for approximately 60 percent of all barley imports in 1995/96 (Appendix Table 2.11). In the 1997/98 crop year, Saudi Arabia, Japan and China imported 5.8 mmt of the 12.7 mmt world barley import total—almost 50 percent. For 1995/96 to 1997/98, the average imports by these top three importers, combined, was roughly 50 percent (Figure 2.11).

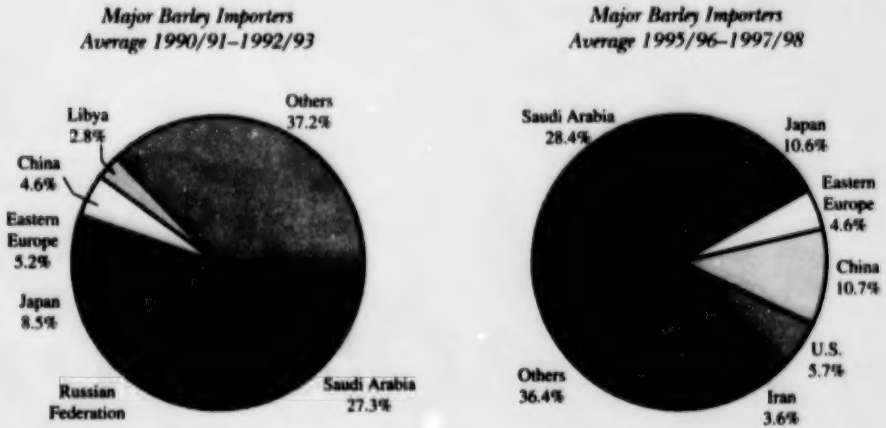
Trade in feed barley far exceeds trade in malting barley. For example, in 1994/95 world barley exports totaled 15.6 mmt, of which only 2.8 mmt was malting barley. Similarly, Canada's feed barley exports exceed its malting barley exports. In 1997/98, 12 percent of Canadian barley production was exported as feed barley, and 8 percent was exported as malting barley. (Canada also exports malt.) The European Union is the largest world barley exporter, at times exceeding 40 percent of world trade. The largest percentage of E.U. barley exports went to Saudi Arabia. Major importers from Canada also include Saudi Arabia and the United States. For example, Canadian feed barley exports to the United States ranged from 49,000 tonnes in 1990/91 to 1.2 mmt in 1993/94.

**Figure 2.10 Major Barley Exporters: Average of 1990–1993 Compared to Average of 1995–1998**



Source: USDA, FAS, *Grain: World Markets and Trade*, May 1996, April 1996, April 1995; USDA, FAS, June 1999; Canadian Wheat Board Statistical Tables, 1997–1998.

**Figure 2.11 Major Barley Importers: Average of 1990–1993 Compared to Average of 1995–1998**



Source: USDA, FAS, *Grain: World Markets and Trade*, various issues; USDA, FAS, June 1996; Canadian Wheat Board Statistical Tables, 1997–1998.

Historically, Canada has been ranked as the world's second largest feed barley exporter. Canada's main feed barley export markets have been Japan and Saudi Arabia. In some years, though, the United States is also a significant market. Australia was the third most important barley exporting country, during the 1990/91 through 1994/95 period. However, in the late 1990s, Australia passed Canada as a barley exporter. Feed barley exports comprised about 1.5 mmt of total barley exports. Australia's primary feed barley export markets have been Japan, Saudi Arabia, and Taiwan.

Saudi Arabia is, by far, the largest feed barley market in the world, with average annual imports often exceeding 4.6 mmt and accounting for roughly 35 percent of the total world feed barley trade. Japan is another important customer whose feed barley imports have not varied a great deal over time. Roughly 95 percent of its total barley imports was feed barley.

Since 1990/91 and while the world feed barley trade declined, the world malting barley trade increased by 44 percent, to 3.2 mmt in 1994/95 (Table 2.5).<sup>3</sup> Steadily

**Table 2.5 Major Malting Barley Exporters and Importers 1990/91–1994/95**

	1990/91	1991/92	1992/93	1993/94	1994/95	Average
	<i>Exports<sup>1</sup></i>					
<i>Exporters</i>	<i>1,000 tonnes</i>					
Australia	1,013	769	746	1325	785	928
Canada	638	936	335	807	1388	821
E.U.	100	282	117	390	567	291
Others	464	532	522	243	441	440
World total	2,215	2,519	1,720	2,765	3,181	2,480
	<i>percent</i>					
Canada's market share	29	37	19	29	44	33
Australia's market share	46	31	43	48	25	37
<i>Importers</i>	<i>Imports<sup>2</sup></i>					
	<i>1,000 tonnes</i>					
China	877	1,044	665	1,167	1,377	1,026
USA	340	282	92	496	721	386
Brazil	165	296	139	160	161	184
Colombia	120	182	146	208	181	167
Others	713	715	678	734	741	719
World total	2,215	2,519	1,720	2,765	3,181	2,480

<sup>1</sup> July/June

<sup>2</sup> October/September

Source: CWB, Annual Reports, various years.

increasing per-capita beer consumption in Asia and in Latin America has fueled this growth in demand for barley. The major exporters of bulk malting barley are Australia, Canada, and the European Union. Historically, these three exporters have accounted for about 80 percent of the world malting barley exports, with market shares of about 37 percent, 33 percent and 10 percent, respectively. Other minor exporters of malting barley include the United States (which is also a large net importer of malting barley), the Czech Republic, Slovakia, Sweden, New Zealand, Argentina, and Uruguay.

The main destinations for malting barley from Australia are China, South Korea, Colombia, Brazil, Taiwan, and Peru. The major European Union destinations for malting barley are Turkey, South America, and, more recently, China. The top two importers of Canadian malting barley are the United States and China, and they account for more than one-half of the world's malting barley imports (Table 2.5). Demand from China is a key factor in the world's malting barley market, since it comprises roughly 40 percent of all world imports. Recent, and future, growth in Chinese demand has been, and will continue to be, one of the main factors influencing the world malting barley market. During the past ten years, beer production in China grew by nearly 500 percent, causing China to emerge as the third largest beer-producing country in the world. In 1994/95, China imported an estimated 1.4 mmt of malting barley—57 percent more malting barley imports than in 1990/91. Typically, China imports slightly more than one-half of its malting barley from Australia.<sup>4</sup> The balance of its malting barley imports is from Canada.

## SUMMARY

The CWB is a marketing agency for farmers in western Canada and is a monopoly seller of wheat, durum, and barley for human consumption to the domestic and world markets. Wheat makes up more than 80 percent of total CWB sales; it is the major commodity and the most important grain produced in western Canada. The CWB has gross sales revenue in excess of CDN \$4 billion: it is the thirty-third largest business in Canada, and among the ten largest exporting companies. The CWB is also the world's largest wheat and barley export company, which annually exports approximately 20 mmt of wheat and 4 mmt of barley. It annually conducts business in more than seventy countries directly, or through companies designated as exporters for the CWB. The CWB's marketing principle of organization as a single-desk seller allows western Canadian farmers to enhance their presence in a world grain market dominated by large MGCs and other STEs. Canada's role in the world production of grain is small, for it produces only about 5 percent of the world's wheat, 13 percent of durum, and 7 percent of barley. However, Canada is a significant world trade player in these commodities with a market share of 17–20 percent for wheat, over 60 percent for durum, and 15–22 percent for barley. The CWB's success can be measured by its ability to maintain and expand its market share for wheat, durum, and barley. Its market share has been maintained despite the problems in the world grain trade and despite substantive export subsidies utilized by Canada's two main competitors: the United States and the European Union. Even with export subsidies, the U.S. share of the world market has been declining from 45 percent in 1980/81 to 30 percent in 1996/97. The

CWB, therefore, does respond to changes in the world grain industry. Even with the breakup of the former Soviet Union—one of Canada's largest export customers—the CWB was able to minimize the impact by developing markets in Asia and Latin America, both of which are forecast to account for the largest percent of Canadian wheat exports by the year 2000.

There are three additional points that have been emphasized in this chapter. First, China and the former Soviet Union create tremendous price instability in world grain markets. For example, the decrease in China's demand for wheat imports by more than 10 mmt in the late 1990s played considerable havoc with the wheat market. Second, Canada and major competitors, such as the United States, do not always compete in the same market. For example, Canada sells wheat to Iran and the U.S. does not. Likewise, Egypt is a large buyer of American wheat, but Canadian sales to this market are minimal. Thus, a perfectly competitive world wheat market does not exist. Third, despite the emphasis on high-yielding, low-protein wheat varieties, both Canada and the United States have had difficulties in marketing such wheats. As a result, acreage growth has stagnated.

## NOTES

- 1 These were the provincial pools. A prior cooperative, the Grain Growers Grain Company (later named United Grain Growers), was established in 1906.
- 2 The interested reader can refer to the Office Consolidation of Canadian Wheat Board Act, January 1, 1999, an internal document of the CWB, for details on the Canadian Wheat Board Act.
- 3 Data are unavailable for the time period after 1994/95.
- 4 More than 80 percent of malting barley that is traded worldwide consists of two-row varieties that represent the international industry standard outside of the United States and in a few South American markets, such as Ecuador. Australian and Canadian offshore malting barley exports are virtually all two-row varieties. Offshore markets for Canadian six-row malting barley include the Japan Food Agency and Ecuador. Canada exports significant quantities of six-row malting barley to the United States that, in turn, exports malting barley to Mexico. Although domestic E.U. consumption is mostly two-row, E.U. malting barley exports can be comprised of either six-row (winter) or two-row (spring or winter) varieties.

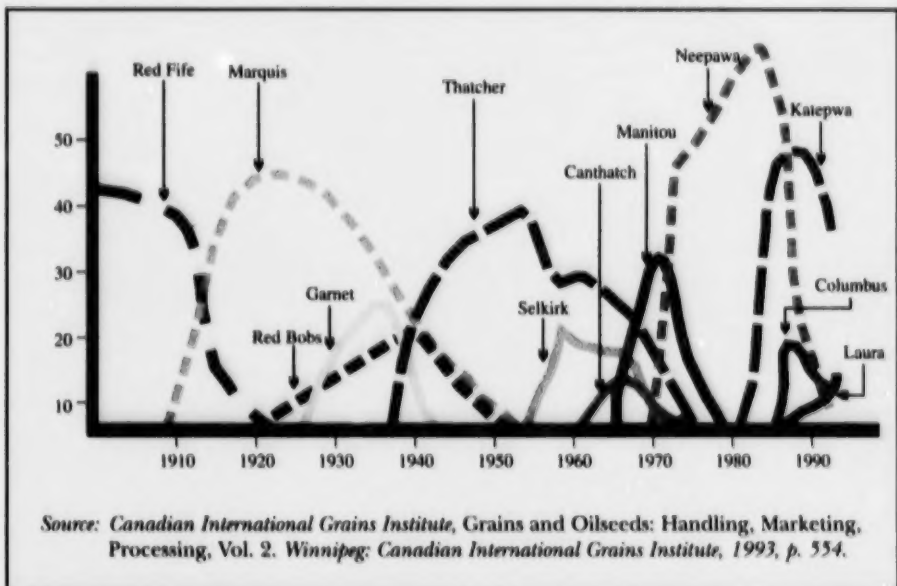


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## CHAPTER 3

### THE GRAIN INDUSTRY: A REGULATORY PERSPECTIVE

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*This graph, showing the leading varieties of hard red spring wheat sown in western Canada from 1900 to 1991, demonstrates ongoing developments in agriculture over the century.*



*And in fairness to the Canadian Wheat Board, readers should be reminded that the observed historic distortions in research that led to a greater emphasis on development and licensing of malting barley varieties...should not be inferred to be the result of the board's activities. Varietal licensing continues to be regulated by the Canadian Grain Commission, not the Canadian Wheat Board.*

— Michele Veeman (1993)

*The Canadian system is sufficiently rigid to ensure consistent quality, but flexible enough to accommodate changing market conditions. We here in the United States can't do that because we have a very diverse marketing system.*

— Agweek (1995)

## BACKGROUND AND OVERVIEW

There is a great deal of misunderstanding regarding the role of the CWB. The CWB is merely one institution among others, including the Canadian Grain Commission (CGC), within a broad and complex regulatory environment governing the Canadian grain industry that ensures, among other things, that Canadian grain sold domestically and abroad is of the quality demanded by buyers. Canada's reputation for producing and marketing high-quality wheat worldwide results from the functions of this entire regulatory structure.

The CWB has been accused of increasing the cost of marketing grain and delaying the licensing of new varieties through its supposed influence on the grain-regulatory system (Carter, 1993; Carter and Loyns, 1996; Carter and Loyns, 1998). Many of these comments are misguided, given that the CWB does not set country elevator tariffs or control varietal licensing. Schmitz and McCalla stressed these points in a report written in 1976 on the Canada-U.S. grain-marketing systems. They noted that, even then, there were criticisms of the CWB for facets of marketing it did not perform and that were beyond its jurisdiction—such as rail rates and grain grading. Many of the misunderstandings result from viewing the CWB as an all-encompassing monopoly responsible for the total grain-marketing system, instead of viewing it as one component within the entire regulatory system (Schmitz, 1996a, 1996b). As an illustration, Michele Veeman notes (1993):

And in fairness to the Canadian Wheat Board, readers should be reminded that the observed historic distortions in research that lead to a greater emphasis on development and licensing of malting barley varieties (rather than higher-yielding feed varieties), should not be inferred to be the result of the board's activities. Varietal licensing continues to be regulated by the Canadian Grain Commission, not the Canadian Wheat Board. (285)

The CWB markets wheat and barley, but it neither sets the price charged by country elevators for handling grain, nor does it lobby for, or set, government price and income support policies. Components of the Canadian grain-marketing system, like varietal control, contribute to the premiums the CWB realizes from customers. However, the CWB, as a single-desk seller of western Canadian wheat, durum, and barley, provides a mechanism for capturing and returning to farmers the benefits associated with these aspects of the Canadian grain-marketing system.

There is a high degree of regulation that governs many facets of the grains and oilseed sector. This chapter presents the organizations responsible for regulating the western Canadian grain industry in terms of their current regulatory functions and responsibilities. It is important to note when considering the scope of the regulatory functions of these organizations, that they do not operate in isolation but work together to assure fair trade practices, enhance system efficiency, and promote product and market growth. For example, the CFIA (Canadian Food Inspection Agency) Plants Products Directorate is responsible for varietal licensing, but the CGC and the CIGI (Canadian International Grains Institute) are involved in testing the quality characteristics of new varieties and their ability to meet the needs of end-users.

Professor Walter Bushuk, an eminent plant scientist, indicates that the role of the CWB in the variety registration process has been overstated. He states that in his forty, or so, years as plant breeder, he never felt any undue pressure from the CWB, although he often sought the Board's opinion. While the CWB is a prominent player in the process of varietal control (as it should be according to Bushuk) it has no direct authority over it. The statutory control of variety registration, he notes, is through the Seeds Act (a responsibility of the CFIA) and through the Canada Grain Act (a responsibility of the CGC).

Professor Brian Harvey, renowned barley breeder from the University of Saskatchewan, has a similar opinion. While the emphasis of the above regulatory framework is centered on the western Canadian grain industry, the role of many of these organizations is not limited to western Canada or to the grain industry. Agriculture and Agri-Food Canada (AAFC) is involved in numerous aspects of all agricultural production. Additionally, the CGC has regulatory responsibilities over non-CWB grains (such as canola, flax, rye, specialty crops, and grasses) in all of Canada. As a result of parliamentary changes, regulatory reviews were conducted to examine the regulations and the regulatory environment of the grains and oilseeds, as well as the roles and functions of those organizations in the grain industry that experienced change.

The responsibilities outlined here are those that currently exist for each organization today, and may or may not represent historical responsibilities. For example, the CGC was responsible for setting maximum elevation tariffs at primary elevators. Within the maximum tariffs, each company was free to charge a different rate at each elevator point—although, in practice, the same rate was charged provincially—and to file the rate with the CGC. These rates were posted to prevent companies from discriminating between individuals at any given point. However, the oligopolistic structure of the primary grain-handling industry and the tariff-filing procedures sometimes resulted in higher tariffs. Russell Jeffrey (1985) showed evidence that price leadership was the prevailing method of price determination (tariffs) in the grain industry.

Between 1980/81 and 1984/85, a review of tariff filings indicated that companies usually filed or re-filed their tariffs with the CGC after the wheat pools filed theirs with the CGC. It was also during this period that the three largest provincial grain-handling companies, Manitoba Pool Elevators, Saskatchewan Wheat Pool, and Alberta Wheat Pool, never adjusted their tariffs during the crop year. As of August 1995, the CGC no longer sets maximum primary or terminal elevator tariffs for elevation, cleaning and

storage. The grain companies now can negotiate the handling charges with the farmers at the primary elevators. In both the previous regulatory and the current non-regulatory tariff environment, the CWB does not negotiate handling charges at the primary elevators with the elevator companies.

## **REGULATORY FRAMEWORK**

### **AGRICULTURE AND AGRI-FOOD CANADA (AAFC)**

The Minister of Agriculture is responsible for administering thirty-seven legislative acts that include agricultural inputs, commodity inspection, health and safety issues, farm financing, marketing boards, farm safety-net programs, trade, packaging and retailing, the futures market, and research. Several department branches administer these acts, including Research, the Prairie Farm Rehabilitation Administration (PFRA), Policy, Market and Industry Services, and Corporate Services. The CFIA, the CGC, the National Farm Products Council, and two crown corporations (the Farm Credit Corporation (FCC) and the Canadian Dairy Commission) are also found within the AAFC portfolio.

The CFIA's objective is to enhance the marketability of agricultural products by ensuring industry compliance to standards, grades, purity, safety, and labeling regulations. This includes compliance of products exported, or imported, by Canada. By the authority of the Seeds Act, new varieties of grain and oilseeds, which are supported by industry evaluation teams, are registered with the CFIA who also supervises the seed-multiplication process.

### **CANADIAN GRAIN COMMISSION (CGC)**

In 1912, the Canada Grain Act established the Board of Grain Commissioners of Canada, now called the Canadian Grain Commission. The CGC is to act in the best interest of producers. Its primary mandate is to establish and maintain standards of quality for Canadian grain and to regulate grain handling in order to ensure a dependable product for domestic and export markets. Specifically, the responsibilities of the CGC are to:

- establish grain grades and quality standards (grades are set under the authority of the Canada Grain Regulations and are assigned on the basis of measured tolerances and specifications);
- test quality characteristics of new varieties of wheat for milling and baking end-use and monitor malting tests on malting barley varieties;
- perform inspection, mandatory grading, and certification of grain quality through the elevator system, and control the amount of foreign grain entering the elevator system to prevent its mingling with Canadian grain;
- supervise inward and outward weighing at the terminals, and perform audits to reconcile physical and book stocks;
- issue licenses to grain dealers and to primary, terminal, process, and transfer elevators, and define the responsibilities and obligations of the licensees;

- regulate procedures and facilities that store or transport grain (all elevators in western Canada are subject to federal legislation, which determines acceptable operating procedures);
- provide statistical coverage of producer grain deliveries, which include grain prices and quotes, exports by ports, grade distribution, and fees charged by primary and terminal elevators;
- allocate producer cars;
- issue end-use certificates for the importation of grain to ensure that imports do not mix with Canadian grain in the grain-handling and transportation facilities.

## **RESEARCH AND INFORMATION**

Numerous institutions and organizations are involved in aspects of research that affect the grains and oilseed sector. The Research Branch of AAFC collaborates with universities, provincial governments, and private organizations to improve the long-term competitiveness of Canadian grain exports. Development of improved grain varieties, pest and disease control, and the transfer of innovative technologies are current areas of research.

### **PRAIRIE FARM REHABILITATION ADMINISTRATION (PFRA)**

The PFRA, a branch of AAFC, has a mandate to encourage the conservation of soil and water resources and to seek opportunities that enhance sustainable economic development in rural communities. It provides technical and financial assistance to municipal governments, to other federal and provincial agencies, and to farmers. Additionally, the PFRA promotes programs that deal with better farm-practice systems, tree culture, water supply, land utilization, and land settlement.

### **CANADIAN SEED GROWERS' ASSOCIATION**

In conjunction with AAFC's Director of the Plants Products Directorate of the CFIA, the Canadian Seed Growers' Association supervises a certification system that guarantees varietal purity of seed produced in Canada. By the authority of the Seeds Act, the Canadian Seed Growers Association, formed in 1904, inspects the production of the pedigree classes of seed. Membership includes seed growers, plant breeders, seed companies, and federal research and regulatory staff.

### **PRAIRIE REGISTRATION RECOMMENDING COMMITTEE ON GRAINS (PRRCG)**

The PRRCG includes representation from the CGC, CWB, AAFC, universities, producers, plant breeders, and end-users. Under this group, technical and agronomic committees are formed for each grain. These committees provide recommendations to the Plants Products Directorate of the CFIA for the registration of wheat, barley, other cereals, oilseeds, and specialty crop varieties in western Canada. The final decision on whether or not a new variety of grain is licensed is made by the Deputy Minister of AAFC.

## **WESTERN GRAIN RESEARCH FOUNDATION**

An amendment to the Canadian Wheat Board Act provided for a voluntary producer levy to be deducted from producer final payments for the purpose of research and development. The levy of CDN \$.20 per tonne for wheat and CDN \$.40 per tonne for barley is used by the Western Grain Research Foundation to provide research funding for the development of improved wheat and barley varieties. While it is not required that the check-off monies go into crop-breeding research, most of it has. Annual deductions can be returned to farmers who request a refund.

## **MARKET DEVELOPMENT**

The Market and Industry Services Branch of AAFC develops, manages, and coordinates with other domestic and international organizations to assist the development of Canada's agri-food industry. Its goal is to improve the global competitiveness of Canadian agriculture and agri-food exports. The CWB also is involved actively in market development. Because of its sales staff and its expertise in the daily operations of the grain industry, the CWB is better equipped to handle grain market development than is Market and Industry Services. The CWB has an additional incentive to develop markets for western Canadian wheat and barley in order to capture the benefits of this investment for Canadian grain farmers. In an open-market system with competitive free riders, individual firms would invest less in market development activity because they would be unable to capture the full benefit of their investment. The CWB Market Development Division and other grain industry participants are able to ensure that sales and market development are planned and executed in a coordinated fashion.

## **CANADIAN INTERNATIONAL GRAINS INSTITUTE (CIGI)**

CIGI is an instructional organization offering courses in grain handling, grain marketing, and instruction in least-cost flour rationing. With its pilot flour mill, noodle plant, and bakery, it tests and demonstrates products and techniques. Courses are offered to industry participants and to potential and existing customers of Canadian agricultural exports. Although this organization was not created by legislation, it does involve government investment. The AAFC and the CWB fund CIGI operating expenses, 60 percent and 40 percent respectively, while the CWB funds 100 percent of CIGI's capital requirements.

## **MARKETING**

### **CANADIAN WHEAT BOARD (CWB)**

Established in 1935, the CWB is a legal and formal agency of the Government of Canada whose primary business activity is to market grain for farmers. With the amendments to the Canadian Wheat Board Act in 1998, the CWB is now a shared governance corporation (similar to air and seaport authorities). It has the sole

authority to market all wheat and barley delivered to it, in the designated regions of Manitoba, Saskatchewan, Alberta, and northeastern British Columbia. The grain goes into two markets: the export market and the domestic human-consumption market. The CWB's objective is to maximize the revenue earned from these sales.

The CWB governance was restructured under the Canadian Wheat Board Act of 1998. As part of the new change, western Canadian producer-members elect ten Board directors, and the federal government appoints five members of the Board, one of whom is the president and CEO. In return, the Canadian Wheat Board Act demands that the government: (1) guarantee producer initial payments, should a deficit occur in any pool account; (2) guarantee the loans the CWB makes to finance its operations; and (3) repay the CWB for any credit sales that go into default.

Numerous regulations govern the daily operations of the CWB that allow it to:

- establish separate pool accounts for wheat, durum wheat, feed barley, and designated barley;
- recommend initial base-grade payments to the federal government for base grades for the crop year;
- establish the price spread between grades of wheat and barley;
- determine a method for the calculation of assignable acres for early crop-year deliveries;
- establish post-harvest contracts;
- determine the timing and portion of delivery contracts in order to call grain forward;
- issue producer certificates indicating the right to subsequent payments;
- authorize export and import licenses;
- establish pricing parameters for the domestic sales of wheat and durum to millers, and for the domestic sales of barley to brewers and maltsters;
- establish buy-back procedures that allow farmers the opportunity to capture any market premiums they identify.

The CWB markets wheat and barley around the world. Its approach to sales depends on the specific market structure, and includes direct sales to state-trading agencies and end-use customers. It also sells to accredited exporters (national exporters as well as the multinational grain companies) who purchase wheat and barley for resale from the CWB. Additionally, the CWB administers the part of the Agricultural Marketing Programs Act that permits it to advance cash payments to farmers for wheat and barley grown in the designated area.

## **PRIVATE TRADE**

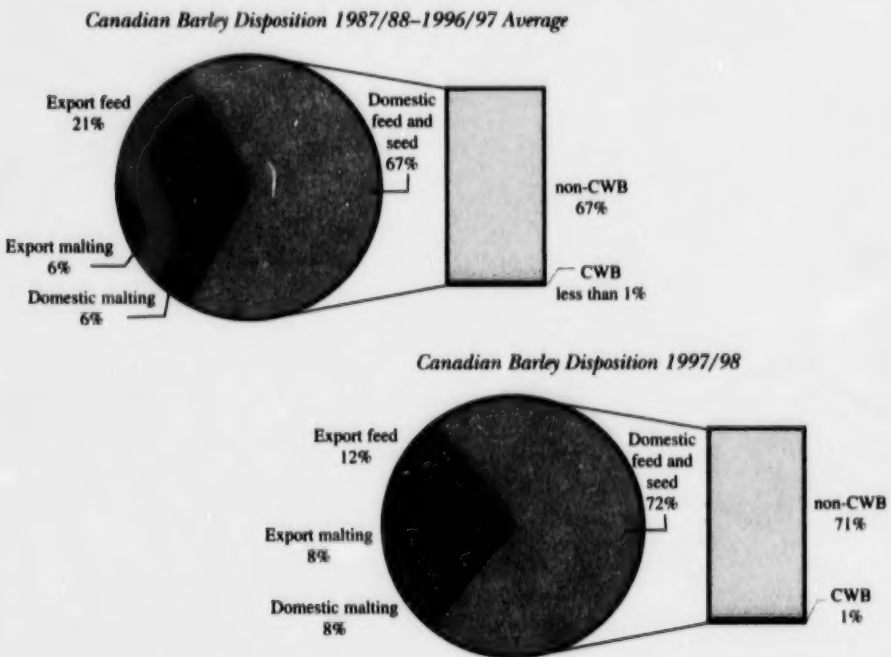
Private Canadian organizations involved in the marketing or processing of western Canadian grain include primary elevator companies, grain dealers, flour millers, brewers, maltsters, industrial plants, and feed mills. Licensed elevators can purchase grain and oilseeds directly from the farmer, except wheat or barley destined for human domestic consumption or for export. Since the CWB does not have handling and storage facilities, it has agreements with the elevator companies to accept



producer wheat and barley deliveries on behalf of the CWB. The CWB directs the movement of its grains from these facilities by class, grade, and protein content to meet domestic and export sales commitments. All elevators are under the jurisdiction of the Canada Grain Act (administered by the CGC) and must comply with operating procedures described in the Act (for example, the acceptance of grain, the condition of grain accepted, the binning of identity-preserved grain, and the methods of payment and blending).

Over time, changes have been made to the scope of CWB marketing. While the majority of wheat is marketed through the CWB, such is no longer the case for barley. The marketing of Canadian-produced barley changed dramatically in the early 1970s when prairie barley producers were allowed to market feed barley either to the CWB or to end-users directly. For the 1987/88 through 1996/97 period, roughly 67 percent of Canadian barley produced was not marketed through the CWB, and in 1997/98, more than 70 percent of Canadian barley produced was not marketed through the CWB (Figure 3.1).

**Figure 3.1 Canadian Barley Disposition, 1987/88–1996/97 Compared to 1997/98**



Source: Gray et al., 1999.

## **PRICING**

### **WINNIPEG COMMODITY EXCHANGE**

The Winnipeg Commodity Exchange (WCE), established in 1887, has approximately 300 individual members and 100 company members. A member-elected Board of Governors and three public governors direct its affairs. The WCE offers futures in canola, flaxseed, oats, and domestic feed wheat and barley, in addition to cash and option trading. The quality parameters, established in the contracts, are the grades determined by the CGC. Daily transactions are balanced by the Winnipeg Commodity Clearing Limited.

Historically, the WCE was self-regulated but was subject to government supervision through the CGC. The Grain Futures Act of 1939, still effective today, gave the CGC the authority to appoint a supervisor of trading, register WCE members, set limits on the trading of one party, and provide information and statistics concerning trades and contracts. Proposed amendments to the Grain Futures Act will give the CGC broader authority to regulate the WCE and its members. Some of the proposed changes include providing the administrator with the authority to:

- regulate recognized futures exchanges, their clearing agencies, and related support organizations;
- regulate and review the development and modification of all contracts traded;
- hear and review complaints by individuals or companies concerning decisions made by the CGC supervisors, exchanges, or clearing agencies;
- conduct investigations and hold hearings;
- freeze assets and properties of an individual or company involved in an investigation;
- conduct audits;
- renew or suspend registration, and impose administrative penalties.

### **CWB PRICING TO DOMESTIC PROCESSORS**

Canadian processors, using wheat or barley for domestic consumption or export, at one time had to purchase their wheat and designated barley requirements through the CWB. This is no longer true for wheat, since Canadian flour millers can import wheat from the United States. To ensure that domestic processors are competitive with U.S. processors, the CWB established pricing agreements with the domestic maltsters and millers based on competitive prices available in the United States.

## **TRANSPORTATION**

Rail is the primary mode of grain transportation. Railways move grain from approximately 900 country positions within Canada to terminals in Thunder Bay, Ontario; to ocean-going ports (such as Vancouver and Prince Rupert, British Columbia, and Churchill, Manitoba); and to eastern domestic markets. Exports to

European and other eastern markets are shipped to ports on the St. Lawrence River either by lakers (through the lock system in the Great Lakes) or by small ocean vessels directly from Thunder Bay, Ontario.

### **NATIONAL TRANSPORTATION ACT**

The National Transportation Agency (NTA) was formed in 1988 under the National Transportation Act of 1987, which replaced the former Canadian Transport Commission under Transport Canada. The NTA is distinct from Transport Canada in that Transport Canada establishes policy, but the NTA implements and administers transportation legislation. It is responsible for the economic regulation of transport industries under federal jurisdiction as vested in it by the National Transportation Act and the St. Lawrence Seaway Authority Act. Prior to the repeal of the Western Grain Transportation Act in 1995, the NTA administered railway subsidies, often referred to as the Crow Benefit, and set the maximum freight rate. Under the National Transportation Act of 1987, the NTA was authorized to make final decisions concerning railway applications for branch-line abandonment, to set annual maximum rail freight rates on grain movements from prairie points to port positions until the year 2000, and to hear tariff-rate disputes. With the passage of the Canada Transportation Act, the NTA became the Canadian Transportation Agency.

Since the repeal of the Western Grain Transportation Act, grain freight rates paid by farmers increased to full compensatory rates. As a result, trucking to some U.S. points became competitive. Consequently, designated barley and durum exports to the United States from southern Saskatchewan and Manitoba are expected to increase as markets are developed in the United States. Similarly, there may be an increased flow of feed barley from Alberta to California.

The transportation of grain and grain products was covered under the Western Grain Transportation Act, which provided a subsidy to western grain farmers for the transportation of grain and grain products from prairie points to Thunder Bay, Ontario; Vancouver and Prince Rupert, British Columbia; and Churchill, Manitoba. Effective August 1995, the Act was repealed, and grain and grain products were placed under the NTA.

### **WESTERN GRAIN TRANSPORTATION OFFICE**

In the 1970s, it was apparent that Canada's constrained grain-handling and transportation system was one of the main factors limiting the growth of Canadian grain exports. As a result, the federal government established the Grain Transportation Authority, which became the Grain Transportation Agency in 1984 with the passage of the Western Grain Transportation Act. With the repeal of the Act in 1995, the Grain Transportation Agency was replaced with the Western Grain Transportation Office (WGTO), but this arrangement was only temporary. The WGTO continued Grain Transportation Agency responsibilities until August 1, 1996, when its functions were absorbed by the grain industry. The WGTO coordinated the movement of up to 36 mmt of grain, across 30,000 km of rail track, to four port destinations and to domestic consumers throughout the country. Based on sales and shipment information, this was accomplished by setting monthly targets of grain to be moved to the various ports.

Additionally, the WGTO identified where bottlenecks in the grain-handling and transportation system might occur.

The rail-car allocation process, as administered by the WGTO, was tiered and involved the WGTO, the railways, the CWB, and the CGC. The following is an overview of each group's participation in the allocation process. Grains for shipment were categorized as administered or non-administered grain. Shippers of non-administered grains (such as flax, rye, and specialty crops) negotiated directly with the railways for rail shipment. On a weekly basis, the railways indicated the number of available cars that remained to ship administered grains (for example, wheat, barley, oats, and canola). The WGTO allocated cars for CWB and non-CWB grains, basing this decision on sales positions. Once the allocation of non-Board cars was determined, the WGTO allocated non-CWB cars to elevator companies, based on its sales commitments, supplies in port position, proportion of country receipts, and grain that was en route to a destination.

This system was replaced August 1, 1996, with direct shipper/carrier negotiations for all cars supplied for non-CWB and non-administered grain. The CWB, grain companies, farmers, and railways formed the Car Allocation Policy Group (CAPG), which is a transitional industry mechanism used to set high-level rail-car allocation principles for splitting the car supply between the CWB and the rest of the industry.

The end of the Western Grain Transportation Act spelled the end of government rail-car allocation. It was decided that an industry rail-car allocation system was needed to transfer allocation to a commercial mechanism. According to Decision #475-R-1998 (CAPG), CAPG's objectives, as stated in its constitution include the following:

- effect allocation through a formal, non-legislative, consultative process that avoids gridlock;
- foster greater accountability between shippers and carriers;
- move to commercial arrangements for logistics management;
- set high-level car allocation policy for regulated western Canadian grain traffic only;
- operate in an impartial and transparent manner;
- function as a non-profit association;
- establish a four-person executive committee composed of one member from the CWB, one member representing grain shippers, one member representing the CNR or CPR, and one grain producer;
- establish guidelines for corridor priorities during periods of rationing;
- establish guidelines for dividing car supply among CWB, non-CWB, and non-administered segments;
- ensure that ongoing monitoring of approved policies is undertaken; and
- ensure adequate capacity planning and information dissemination is undertaken to allow the market to function properly. (For more detail see Appendix 10A.)

#### **CANADA PORTS CORPORATION**

By the authority of the Canada Ports Corporation Act of 1983, the Canada Ports Corporation (Ports Canada) administers the federal system of Canadian ports. The

Canada Marine Act proposed privatizing Ports Canada. A new national ports system is proposed in which ports are managed by non-profit Canadian Port Authorities (CPA) comprised of representatives from industry, labor, and government. Under the new system, the ports of Vancouver and Prince Rupert, British Columbia, Quebec City and Montreal, Quebec will be designated as CPAs. Although the government will continue to own the land, it will not pay subsidies. The CPAs will be responsible for financing their own capital expenditures, and surpluses may be re-invested in the port.

#### **ST. LAWRENCE SEAWAY MANAGEMENT CORPORATION**

The St. Lawrence Seaway Management Corporation, formerly the St. Lawrence Seaway Authority, is a crown corporation established under the St. Lawrence Seaway Authority Act, and is responsible for maintaining a deep waterway between the Port of Montreal, Quebec and Lake Erie, Ontario. It also regulates the movement of traffic along the Canadian portion of the St. Lawrence Seaway. Since its inception in 1954, this Corporation has had difficulty collecting sufficient revenue to cover its operating costs and to repay its capital funding. One of the recommendations of the proposed Canada Marine Act is to commercialize the St. Lawrence Seaway. A consortium of nine corporations has proposed taking over the Canadian portion of this seaway, and several other alternative management approaches have been suggested. As of September 1999, no decision on commercialization of the St. Lawrence Seaway has been made.

#### **CANADIAN COAST GUARD**

As part of the federal government's intent to modernize marine management and to cut expenditures, the Coast Guard, governed by the Financial Administration Act, has adopted a cost-recovery approach in which service-specific fees are charged for the movement of grain. Separate fee structures are set for the West Coast and for eastern Canada. Fee assessments on grain movements will be based on vessel gross revenue tonnage (GRT). As this increases the cost of shipping export products out of Canadian ports, it is expected to have an impact on the competitiveness of Canadian exports.

#### **ONTARIO WHEAT PRODUCERS MARKETING BOARD (OWPMB)**

Part IV, Section 45(a) of the Canadian Wheat Board Act reads, "Except as permitted under the regulations, no person other than the Board shall... export from Canada wheat or wheat products owned by a person other than the Board." All wheat, durum, and barley marketed outside of Canada must receive an export permit from the CWB. This includes exports made by the OWPMB, which is the single-desk seller of wheat that is produced in Ontario. It was established in 1958 following a referendum among winter wheat producers in that province. The OWPMB acts on behalf of all Ontario wheat growers to organize the marketing of their crops. According to the power of legislation vested in it by the government of Ontario, ten annually elected producer-directors (one from each district), who manage the OWPMB's operations and determine its policies, administer the OWPMB. The Ontario Wheat Producers'

Marketing Plan (O.Reg.346), established by the Farm Products Marketing Act, gives the OWPMB control over all aspects of the marketing of wheat grown in Ontario. This includes sales for human consumption, seed, exports, and feed, with the exception of wheat sold directly from one producer to another for on-farm use.

The OWPMB represents about 17,000 active Ontario wheat producers who collectively market an average of 1 mmt of wheat annually. Its current marketing system has been in effect since 1973, when the OWPMB achieved agency status and began pooling the receipts from its domestic and international grain sales. The OWPMB currently operates four pool accounts: Pool A for Canada eastern white wheat (grades #1-3) and feed wheat; Pools B and C for red spring and red winter milling wheat varieties grown from certified seed (grades #1-3); Pool F for red milling wheat varieties grown from common seed (grades #1-3); and Pool G for red feed wheat. Canadian eastern white wheat accounts for more than 80 percent (800,000 tonnes) of the total one million tonnes of wheat produced by Ontario's 18,000 producers each year. The OWPMB exports approximately 70 percent (700,000 tonnes) of the wheat produced in Ontario through recognized grain export firms, basis f.o.b. Canadian ports at competitive world prices. The remaining 30 percent (300,000 tonnes) of the crop is sold domestically for feed (90,000 tonnes), seed (15,000 tonnes), and human consumption (195,000 tonnes). Red wheat production expanded rapidly during the 1990s.

The OWPMB prices Canadian eastern white wheat and hard red milling wheat with soft characteristics basis nearby Chicago futures and converts them to Canadian dollars. Sales to the United States are basis Chicago futures. HRW milling wheat is priced (basis nearby Chicago times the exchange rate plus a \$15 per tonne premium) if the protein content is above 12 percent. HRS milling wheat (with a protein content of 12.5 percent and above) is priced basis #2 Canadian Western Red Spring (CWRS) at Thunder Bay; white milling wheat (with a protein content below 12.5 percent) is priced equivalent to #3 CWRS at Thunder Bay.

Ontario producers who deliver wheat to the OWPMB receive an initial payment guaranteed by the federal government from which a license fee of CDN \$1 per tonne is deducted for administration costs. The OWPMB pays interim and final payments directly to the producers. Interim payments are made as receipts from domestic and export sales permit. Final payments are made after the pool accounts are closed (annually on June 30), with checks usually distributed in September of the same year. Delivery of 90 percent of the crop generally occurs in the first eight weeks following harvest and must be marketed quickly to accommodate the Ontario corn harvest. In an attempt to spread deliveries over an extended period, the OWPMB offers producers a storage premium for keeping grain on the farm from September to May. For 1995, the on-farm storage program increased a farmer's initial payment by as much as CDN \$4.00 per tonne per month to a maximum of CDN \$15.00 per tonne.

Before 1994, the majority of the costs associated with marketing wheat (such as the cost of transportation from the primary to the terminal elevator) were paid by the pool accounts. In turn, all producers shared these accounts. In 1994, under pressure from the producers to encourage cost-effective delivery and to reflect regional advantages, the OWPMB introduced a landed-basis initial payment. In this way, the



producer receives an initial payment as a marketable position basis (that is, transfer terminal or processor), rather than as a country basis. The country basis was a price paid to producers for grain-handling and transportation fees for delivering their grain directly to a transfer terminal or to a processor.

The OWPMB also introduced a protein segregation program in 1994 for grades #1-#3 of Pools B and C. Producers now receive a CDN \$15 per tonne premium for red winter and red spring wheat deliveries that have a protein content above 12 percent and 12.5 percent, respectively. As of December 1, 1995, the OWPMB and the Canadian National Millers' Association (CNMA) had not finalized a pricing agreement for red wheat for the 1995/96 crop year, so the 1994/95 price agreement stands. The problem in reaching a new agreement is related to red wheat sales to the United States. The CNMA contends that the discounts offered to U.S. millers by the OWPMB adversely impacted their mills.

In 1998, Ontario wheat growers approved the creation of a dual market so Ontario producers could ship grains to any market without going through OWPMB. As of April 1999, however, this proposal for a dual market has been put on hold. We speculate that this delay has political underpinnings. In order for a dual market in Ontario to be implemented, the CWB would have to be involved since only it can issue permits for Ontario wheat producers to ship grains to the United States. Politically, this dual marketing is unlikely, for western farmers would protest against not having access to a dual market themselves for CWB grains.

## SUMMARY

Canada's reputation for producing and marketing high-quality wheat worldwide is a result of a broad and complex regulatory framework that governs the Canadian grain industry. The CWB, in conjunction with other institutions (including the CGC), functions within this regulatory environment to insure, among other things, that Canadian grain sold domestically and abroad is consistently of high quality.

Studies that have been critical of the CWB often misunderstand what the CWB does, and does not do, in matters of handling, transporting, and marketing grain. These critical studies wrongly attribute such things as marketing costs and country elevator tariffs to the CWB. This chapter presents the regulatory structure and demonstrates that many of these criticisms are without basis.





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## CHAPTER 4

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### SINGLE-DESK SELLERS AND MULTINATIONAL GRAIN COMPANIES

**Principal Exporters of Durum Wheat:  
Average Market Share 1988/89–1997/98**



*Source: Statistics Canada, International Grains Council and USDA "Inspections for Export."*

*As can be seen in this graph, Canada and the Canadian Wheat Board dominate the world durum market.*

*A thousand farmers controlling ten million bushels of wheat and selling through a single accredited agent would be in a position of a single person owning ten million bushels. It is a well-known fact that the owner of ten thousand bushels can make a much better bargain for his wheat than the owner of one thousand bushels.*

— Ed Partridge, First President, Grain Growers' Grain Co. (1905)

## THE STRUCTURE OF WORLD GRAIN MARKETS

While the CWB has a monopoly on Canadian exports of wheat, durum, and barley, it does not have a monopoly over the world grain trade. A major feature of international grain markets is that marketing boards, such as the CWB and the Australian Wheat Board, sell into a market where there is competition with middlemen or intermediary firms that buy from producers and sell to end-users. Intermediary firms include MGCs. The CWB, a single-desk seller, competes with these MGCs, and also competes with STEs, which include the European Cereals Management Commission and the American Commodity Credit Corporation. For about two-thirds of its sales, the CWB sells directly to foreign end-users, and may use CWB-accredited export merchants (some of which are MGCs) to complete the logistics of the trades. Grain may also be sold by the CWB directly to private firms, which can, in turn, resell the CWB grain. In this way, the private firms act as principals rather than as agents of the CWB. Thus, the selling of CWB grain can involve an intricate selling structure before its grain actually reaches the end-user.

Schmitz et al. (1981) state,

in spite of governments' and marketing boards' increased involvement in the pricing of grains, the private grain trade still plays a major role in the marketing of wheat and feed grains. The private grain firms, which are multinational in scope, carry out several functions crucial to the marketing of grain. Even in cases in which wheat is sold by the Canadian and Australian Wheat Boards, for example, private trade is involved since it carries out shipping and other activities related to getting the grain from Canada and Australia to importers. (27)

They go on to state,

the grain trade is similar to any other form of international market as it involves the production and collection of a product in dispersed locations in an exporting country and its movement to dispersed consumption points in the importing country. At some point between production and consumption, a contractual transfer of ownership occurs. In the grain trade, the contractual arrangement involves many factors including price, quantity, quality, point of ownership transfer, terms of payment (when and in what currency), marine insurance, carrying charges, responsibility for unforeseen events, time period of delivery, and means of settlement of disputes.... There are six basic contractual types that are common in the grain trade. The first three—free on board (f.o.b.), free alongside ship (f.a.s.),

and free, stowed, and trimmed on boat (f.s.t.)—require the exporter to deliver only to the exporting port; all other functions are provided by the importer either directly or through the middleman. The last three—cost and freight (c.&f.), cost, insurance and freight (c.i.f.) and delivered to final destination (d.f.d.)—involve the exporter in movement of the grain to at least the importer port of entry. The most frequent forms of trade are f.o.b. and c.i.f. (27)

McCalla and Schmitz (1979) remind us that

state-trading exporters almost never become directly involved in the logistical terms of grain handling. The Canadian Wheat Board, for example, sells principally on an f.o.b. basis, leaving the importer to deal with the risks involved in shipping, freight, and foreign exchange. Similarly, state-trading importers typically buy on a c.i.f. or d.f.d. basis. This means that, in contractual arrangements involving a state-trading exporter and a state-trading importer, a middleman (usually a multinational grain firm) is almost always involved at least in the logistics of the trade.... In addition to the private sector carrying out f.o.b. activities for many of the state-trading agencies, it also buys grains directly from these agencies. For example, Cargill Grain, Inc., has at times purchased sizable quantities of wheat from the Canadian Wheat Board; therefore, in these transactions it does not act as an agent to the board. (29)

The marketing structure for CWB grains is different from the marketing structure for U.S. grains. As pointed out by Hill (1992), large MGCs dominate the export side of the U.S. grain-marketing system. The dominating MGCs that are involved in the export of U.S. grain are Cargill, Inc. (American-based), Continental Grain Co. (American-based but French-owned), Archer Daniels Midland (American-based but it has a joint export venture with the German-based Toepfer), Bunge (Brazilian-based), Louis Dreyfus (French-based), and several subsidiaries of large Japanese corporations, some of whose headquarters are in the United States. All of these companies source grain either from the United States, and other countries, or through their affiliates in other countries.

In essence, MGCs in the United States act as middlemen with respect to the buying of grain from U.S. elevator companies and the selling of grain to foreign buyers. In this role, these firms act as principals—not as agents—with respect to local U.S. cooperatives and to others who originally source the grain (that is, ownership and control is transferred to MGCs). Cargill, Inc., Louis Dreyfus, Continental Grain Company, and Bunge control more than 80 percent of the total volume of wheat, durum, and barley exports from the United States. Many of these firms, however, trade within their specific niche regions and/or niche commodities. For example, Toepfer controls the largest portion of the international feed barley trade. Only a few firms are principals in 70–80 percent of world trade in feed barley. This is not the case, however, for durum wheat trade in which other firms are also involved in the export trade. These one, or two, companies may control the majority of exports of a particular grain.

While these major MGCs control most of the exports of U.S. grain into other countries, they do not play as important a role in the origination of U.S. grain and its sale to domestic processors. The majority of domestic grain procurement activities from the farmers are performed by local U.S. grain cooperatives. (For example, in 1984 more than 2000 local grain cooperatives handled about 128 mmt of grain, which

represents 41 percent of total U.S. off-farm sales.) However, only a few of these cooperatives operate inter-regionally, or at the port elevators.

Some argue that economies of scale in transportation, coordinating information, and risk pooling lead to a small number of large MGCs. Like the MGCs, the CWB, as a single-desk seller that also has economies of scale in transportation, risk pooling, and coordinating information, enjoys these competitive advantages. According to Loynes and Kraut (1995), the ability to organize and to commit large amounts of a uniform, quality product with a guaranteed price (for up to a year at a time) provides an advantage to the CWB. The CWB efficiently facilitates the transportation of wheat, durum, and barley to port positions. Although information is not perfect in the marketplace, it may work in the Board's favor because, like some major grain companies, the CWB has an extensive market intelligence network. Independent competitive multiple sellers in Canada would not be able to achieve the CWB's degree of coordination. In addition, the CWB maintains an impressive array of approaches that expedite the coordination of information, through which it is able to facilitate risk pooling. A larger number of smaller Canadian firms would not undergo such an extensive investment in information capital.

Canada had more than 60 percent of the durum export market trade in 1996 and 1997. For the same years, Canada and Australia combined, enjoyed more than 50 percent of the barley export market trade, more than 70 percent of the malting barley export market trade, and more than 30 percent of the wheat export market trade. In durum and barley, the MGCs, functioning as principals, had less than one-half of the export market trade. For wheat, it was an entirely different matter. The United States and the European Union had more than 50 percent of the world wheat export market trade. Since MGCs also operated in the European Union as principals, one can expect that they controlled more than 50 percent of the wheat export market trade.

## **MULTINATIONAL GRAIN COMPANIES**

MGCs such as Cargill, Inc. and Louis Dreyfus are major players in international grain markets. In addition to acting as agents for the CWB, they operate large accounts with which they buy grain outright from farmers and sell it to foreign buyers. Many MGCs are involved not only in grain, but also in the production of fertilizer, and other activities, which include cattle-feeding operations. Cargill, Inc. (under the name of Excel) and Continental Grain Co. are large cattle-feeding operations. Continental Grain Co. has a capacity to feed over 400,000 head of cattle yearly and is one of the largest cattle-feeding operations in the United States. Cargill, Inc. and Archer Daniels Midland (ADM) are significant soybean crushers. These two firms crush most of the soybeans grown in Brazil, which is a major U.S. competitor.

The 1998 *Forbes* listing of private companies in the United States named Cargill, Inc. as the largest private company and Continental Grain Co. as the fifth largest. Cargill, Inc. has extensive livestock production and meat processing, feed, poultry, steel shipping, and other businesses. Continental Grain Co. has extensive livestock production, and feed company and financial operations. Cargill, Inc. has 243 grain facilities in the United States. This total is in addition to its grain-merchandising offices and facilities throughout forty-three countries. ADM, the industry leader, has 669 facilities,

either through ownership or joint ventures. Continental Grain Co. has offices and facilities in thirty countries for grain storage, transportation, export, and trading operations; it also has customers in more than 100 countries.

Table 4.1 gives the 1998 gross sales, net profits and number of employees for Cargill, Inc. and Continental Grain Co. The data reveal that the gross revenue for Cargill, Inc., in 1998, exceeded U.S. \$50 billion.

**Table 4.1 Cargill, Inc. and Continental Grain Company Statistics, 1998**

<i>Statistics</i>	<i>Cargill, Inc.</i>	<i>Continental Grain Co.</i>
Revenue ( <i>billion US\$</i> )	51.4	15
Net profits ( <i>million US\$</i> )	468	100 (est.)
Employees ( <i>thousands</i> )	80.6	17.5

*Source: Hayenga and Wisner (1999), p. 20.*

Storage capacity of the ten largest U.S. grain elevators, milling, and processing companies is given in Table 4.2. The capacity of ADM and Cargill, Inc. exceeds one billion bushels—a capacity that is greater than Canada's total wheat production!

An MGC finds itself marketing grain in a volatile world market, as does the CWB. In the 1960s and 1970s, the world grain market grew rapidly. Previously closed markets (such as the former Soviet Union) became significant customers. Production and exports increased, as did the infrastructure that provided storage and transportation. By the 1980s and 1990s, this booming export market fell apart. The economies of the former Soviet Union, and the seemingly stable Asian economies (such as Japan, Thailand, and Korea) experienced sharp downturns. Argentina and Brazil appeared as major competitors in the export of corn and soybeans; Western Europe's exports increased, and reduced the U.S. share of world exports. At the same time, growth in the U.S. poultry and livestock sector and in the domestic processing industries (such as corn sweeteners, ethanol, and soy crushing) decreased grain exports because these grains were consumed at home. Pork and beef displaced grain. Grain facilities, storage facilities, and transportation services were enlarged to accommodate the expanding export business because of government incentives or in anticipation of increased exports. These actions led to substantial excess grain storage since the bottom dropped out of the market.

Cargill, Inc. estimated that it, and Continental Grain Co., accounted for 35 percent of the U.S. grain and oilseed exports in 1998. Industry sources, using Department of Commerce data (Pier Import Export Reporting Service) for May 1997, through October 1998, calculated that Cargill, Inc. and Continental Grain Co. accounted for 14.5 percent and 13.1 percent, respectively, of grain exports. The export shipments of wheat, corn, soybeans, sorghum, barley and oats were based on bills of lading filed with U.S. Customs.<sup>1</sup> In his letter to the U.S. Department of Justice during the 1998 fiscal year, Dan Glickman, the U.S. Secretary of Agriculture, estimated that the



**Table 4.2 Storage Capacity of the 10 Largest U.S. Grain Elevator, Milling and Processing Companies in 1999**

<i>Company</i>	<i>Total Capacity, 1999 (million bushels)</i>
ADM	611
Cargill, Inc.	463
ConAgra/Peavey	198
Farmland Grain Division	178
Bunge	170
Continental Grain Company	169
Cenex Harvest States Cooperative	146
Riceland Foods	102
The Andersons	80
General Mills	72

Sources: *Structural Change and Performance of the U.S. Grain Marketing Industry*; Milling and Baking News, Grain and Milling Annual, 1999, pp. 21-22; Hayenga and Wisner (1999), p. 20.

combined operations of Cargill, Inc. and Continental Grain Co. accounted for 42 percent of the U.S. corn export volume; 31 percent of the U.S. soybean export volume; and 19 percent of the U.S. wheat export volume. These figures were based on grain that was inspected by the USDA for export from its facilities (Hayenga and Wisner, 1999).

During the 1998 fiscal year, the USDA provided data on the shares of the four companies that topped their list relative to the total export volumes of corn, wheat and soybeans (Table 4.3). This data treated Cargill, Inc. and Continental Grain Co. as

**Table 4.3 Export Market Shares by Top Four Grain Companies**

<i>National Exports (all ports)</i>	<i>Top 4 Share Percent</i>	<i>Top 4 Companies</i>
Corn	80.9	ADM, Cargill, Continental, Zen-Noh
Wheat	46.6	Cargill, Columbia Grain, Peavey, United Grain
Soybeans	64.9	ADM, Cargill, Continental, Zen-Noh

Source: USDA, *Grain Inspection, Packers & Stockyards Administration*; Hayenga and Wisner (1999), p. 21.

separate firms, so their combination would increase these shares substantially. There is a very large share of the export volume accounted for by a few firms in a large number of locations. Nationally, 81 percent of corn exports were accounted for from the facilities of the top four MGCs—Cargill, Inc., Continental Grain Co., ADM, and Zen-Noh. (Note that this does not necessarily mean that the grain was owned by these firms: instead, they may have just provided the ship-loading facilities, for a fee, for another competitor in the market.<sup>2</sup>) The same top four MGCs accounted for 65 percent of the soybean exports, while a substantially different set of the largest MGCs marketed only 47 percent of the wheat exports.

### **PROPOSED MERGER**

In 1998, Cargill, Inc. proposed a merger with Continental Grain Co. wherein Cargill, Inc. would purchase Continental Grain Company's merchandising business, thereby joining the world's two largest grain and oilseed exporters. If the merger, as proposed in 1998, was approved by the U.S. Department of Justice, the new company's assets in the United States would include eighty-three grain-handling facilities. Such a merger would add seventy-three new locations to its current 243, and ten of those facilities would be located where Continental Grain Co. and Cargill, Inc. already have elevators close to each other.

On July 8, 1999, the U.S. Department of Justice announced that Cargill Inc. could proceed with the purchase of Continental Grain Co.'s Commodity Market Group. (This purchase does not include Continental Grain Co.'s pork, poultry, cattle, aquaculture, animal nutrition, petroleum-trading, financial services, or investment business.) Once the Commodity Market Group is removed from Continental Grain Co.'s holdings, the remaining Continental Grain Co.'s operations will then become Conti-Group Companies. In order for the merger to be completed, however, the two companies are required to divest various entities, which include port elevators located in Seattle, Washington; Beaumont, Texas; Stockton, California; and Chicago, Illinois.

### **PRICE DISCOVERY**

Price discovery takes place at each stage of the marketing system when ownership changes hands, and when there is an interaction of supply and demand forces in each local or regional area. These same conditions, in turn, are influenced by the supply and demand conditions at the domestic, or export, customer source. Price reporting by government agencies, plus the interaction of buyers and sellers at the local elevators, provide some transparency in the price-discovery process among the merchandisers. The information gleaned by the merchandisers is, in turn, ultimately relayed to the farmers.

The Board of Trade (Chicago, Illinois), the Board of Trade (Kansas City, Missouri), and the Grain Exchange (Minneapolis, Minnesota) play significant roles in providing wheat, corn, and soybean futures contracts and price discovery. All three futures markets have delivery points for each contract and that involves Cargill, Inc. and Continental Grain Co. elevators. These futures contracts are major sources of marketing information; as well, they are global price-discovery mechanisms. Futures contracts are used to manage price risks for farmers and for grain merchandisers at all

stages of the marketing system. They exert significant influence on the price and margin structure in the grain industry.

The perception of the U.S. grain market is that it is a fairly well integrated national market. Farmer cooperatives handle a large share of grain from farmers. Farmer cooperatives (such as Farmland, Harvest States, and Land O'Lakes), and public/private grain-trading, or processing, companies (such as Cargill, Inc., Continental Grain Co., ADM, Farmland, ConAgra, General Mills, Louis Dreyfus, and Zen-Noh) play roles in the direct purchase of commodities from farmers. They also play roles in the subsequent trading of these purchased commodities at various stages of the distribution process. The structure of the American marketing system, however, is very different from the Canadian marketing system in which the CWB is the key player that interfaces with the MGCs for the marketing of wheat and barley.

## **CWB MARKETING**

The Canadian Wheat Board Act, Section 7(1), states that the CWB must sell and dispose of the grain it acquires in its operations for such prices as it considers reasonable, with the objective of promoting the sale of grain produced in Canada in world markets. The CWB, then, is empowered by the Act to decide the best marketing strategies and methods to carry out this mandate in the ever-changing world grain markets.

Until the mid-1960s, the CWB posted and maintained stable offering prices at Canadian port positions. CWB grains were sold for cash only, mainly to companies accredited by the CWB to sell Canadian grain in the export market (called "accredited exporters" in CWB parlance) that acquired ownership and exported Canadian grain. (Many of these accredited exporters were the Canadian subsidiaries of international grain companies; their parent companies were therefore also sellers of grains purchased from other origins.) Most of the Canadian export business was done in small cargo lots. Prior to the mid-1960s, United Kingdom and European millers and merchandisers were the largest premium and volume customers for Canadian grain. Stable offering prices were possible because of the International Wheat Agreement (IWA) price range that was negotiated periodically between major importing and exporting countries and by cooperative action by the United States and Canada in carrying stocks and/or curbing production when necessary.

During the 1960s, the world grain industry was changing. State organizations were becoming, or were created to be, monopoly importers. The United States maintained its policy of high internal prices and export subsidies. The United States, struggling to find export outlets, was frustrated by its own foreign policy ban on exporting to the huge markets of the former Soviet Union and the People's Republic of China, which were both being served by the Australian Wheat Board and the CWB. In addition, Canada continued to dominate the premium European wheat market. U.S. support for the IWA (the International Grains Agreement of 1968 replaced the earlier wheat agreements) and for export-pricing cooperation evaporated. The early part of 1969 signaled a new, competitive era in the international wheat trade. The world no longer had an international agreement with any meaningful economic provisions. Accordingly, the

CWB changed its marketing approach to better meet the specific requirements of its customers. New features were added, such as direct selling, long-term supply agreements or assurances, and the provision of eighteen to thirty-six month credit to meet other export supplier competition. However, the CWB maintained its traditional emphasis on quality control and continued to follow its objective to achieve the best return for western Canadian producers.

### INTERNATIONAL SALES

**Direct Sales:** Most sales of prairie wheat and barley into export markets (60 to 70 percent) are direct sales (that is, those made by the CWB negotiating directly and signing contracts directly with overseas buyers, both state and private sector). Direct sales contracts include the usual terms such as price, quantity, type of grain, class, grade and other quality specifications, port, and shipping period. They might involve only a parcel lot (a partial cargo), a single shipment of one small cargo, or many cargoes shipped over several months. Such sales are usually made on the basis of an in store, or free on board (f.o.b.), position at a Canadian port. Cash payment comes at the loading time of each cargo; credit repayment is made anywhere from thirty days up to thirty-six months following the grain purchase. The CWB negotiates and executes such contracts in the same manner as private sector grain-marketing companies. The majority of sales are for shipments within the next two or three months of the signing of the contract, but occasionally the CWB and buyers are willing to negotiate contracts with shipment periods extending as far as six to twelve months, which is typical for larger volumes. These types of longer term contracts (which contain both prices and quantities) are usually made with large-scale government and private sector importing companies. One example of a large-scale government importer that does not fit this pattern is the Japan Food Agency, which buys on a weekly basis and uses weekly import tenders.

In a few instances the CWB also negotiates long-term agreements (LTAs) or memoranda of agreement or understanding (MOAs or MOUs) with foreign government agencies responsible for essential food supplies and/or imported supplies for the client country, and with large private sector importers. These are usually long-term supply agreements of up to three years and they are purchase umbrella agreements. They specify the quantities and qualities of grain which the CWB will supply and the buyer will purchase during the course of the period specified. Then, the actual sales of that grain still have to be negotiated between the two parties, based on competitive market factors at the time of each contract negotiation. In some cases, the negotiation of LTAs and MOAs/MOUs occur because government importing agencies, or foreign processing companies, need the security of an assured supply of grain. The CWB enjoys the security of a reasonable expectation that purchases will be made in exchange for reserving a supply for customers in its sales plan. The use of this type of agreement has declined, and in 1997/98, only about 10 to 15 percent of the CWB's wheat trade was conducted within the framework of LTAs and MOAs/MOUs.

Of the direct sales contracts negotiated by the CWB, less than 25 percent would involve the private grain trade, which are usually transnational corporations, in some strictly logistical capacity (for example, handling the f.o.b., or chartering the freight for the buyer). More typically, organizing the shipping logistics is handled by the importer,

which (in many cases) is a state enterprise (for example, the Algerian Interprofessional Cereals Office (Office Algérien Interprofessionnel des Céréales) and the Government Trading Corporation of Iran).

**Indirect Sales:** The CWB also makes what might be termed indirect sales via accredited exporters (Canadian grain companies, Canadian subsidiaries of transnational grain companies, and purely international grain companies). These are sales to companies as principals, who, in turn, resell the grain either to intermediate merchandisers in the grain-marketing chain or to end-users. About 30 to 40 percent of the CWB's sales are made this way, depending on the year. These firms solicit and/or respond to CWB offers of grain at port positions, almost always for specific countries of destination identified to the CWB by the accredited exporter at the outset of the negotiation. Even in this type of indirect sale, the CWB usually develops the customer interest and is usually in direct contact with the intermediate buyer and/or the ultimate buyer. This sale is indirect only in the sense that the CWB's contracting party is the accredited exporter rather than the intermediate merchandiser or end-user. However, the accredited exporter and the CWB's relationship is a commercial one in the sense that price and other contractual terms are finalized by mutual agreement. The CWB specifies which country the grain will go to in its contract with the accredited exporter.

#### **DOMESTIC SALES**

The CWB is the exclusive seller of prairie wheat and barley sold domestically for human consumption. In the case of wheat, prior to 1989, a two-price wheat pricing policy existed in Canada. The federal cabinet set a maximum and minimum price that the CWB could charge its domestic millers. Imports into Canada were controlled through CWB import licensing and costs were passed on to the consumers. In most years the CWB charged domestic millers a price above the world price. After the Canada-U.S. Trade Agreement (CUSTA), the CWB initiated changes in the way it priced wheat and barley in the domestic market. These pricing changes reflect that Canadian processors are operating in a North American market and are open to competition from U.S. processors.

Prior to 1989, domestic wheat prices for an upcoming sixty- or ninety-day period were established on the fifteenth day of the month preceding the start of the designated period. Mills then booked wheat as they needed it, drawing it out of CWB-owned stocks and paying the established price for the period plus a surcharge for CWB carrying costs. In the late 1980s, with the advent of CUSTA, major changes in domestic pricing policy took place. The CWB moved to pricing structures for domestic wheat and barley sales that were based on the U.S. internal grain prices. The prices paid by Canadian millers are now based on prices in the U.S. futures and cash markets, with adjustments for location. Malting barley prices are based off the U.S. cash market. Canadian millers and maltsters have the latitude to import U.S. wheat and barley if they are unhappy with CWB prices or with the availability of CWB grain. To date, imports of U.S. wheat and barley have been negligible, as would be expected given the existing pricing structure.

In the early 1990s, the CWB also introduced a "producer direct sales" provision whereby farmers can arrange to sell their own wheat or barley directly into the U.S. market and still participate in the relevant CWB pool account. The farmer delivers the



wheat or barley to the elevator on paper only, not in actual product. In fact, just a representative sample of the grain to be exported is taken to the elevator for grading. The farmer receives the per tonne initial payment and the right to receive any subsequent payments from the pool, and then purchases the wheat or barley from the CWB for resale. When selling wheat or barley directly into the U.S. market, a farmer is in a relationship with the CWB that is similar to a CWB accredited exporter. He or she must buy from the CWB for his or her resale to the United States at a price consistent with the market and at a price that the CWB, as the marketer, finds amenable. This price to the farmer is set by the CWB to reflect the proper value of the grain to the relevant pool account. The price is based upon what the CWB calculates it could sell the grain for if that grain were sold by the CWB to the United States. An individual farmer can purchase the grain by paying the spread between this price and the initial payment for that quality of grain. The farmer then could apply for a CWB export license for his or her grain.

### **PRODUCER PRICING AND POLICY**

The CWB operates a price pooling system through which farmers receive the same price over the crop year for a given quality of grain. There are four CWB pool accounts: (1) wheat, other than durum wheat; (2) durum wheat; (3) feed barley; and (4) designated barley (this is barley designated for human consumption, and is almost always malting barley). Farmers share in the proceeds of all sales from a given pool account and the costs associated with that pool. Their per tonne returns differ only because of quality and delivery point differences.

There are two elements to the pooling of sales returns. First, all revenue from sales of a given pool account—for example, durum wheat—is deposited into that account from which the costs relevant to those sales must also be deducted. Second, how the funds in that pool account are going to be allocated fairly among the different qualities of grain, which were delivered to that pool, must also be sorted out. This is done by spreading the per tonne returns among the various qualities (for example, classes, grades, and protein levels) of grain. This is based on price spreads which actually existed in the grain market over the course of the year.

For a given crop year, the Canadian federal government, based on the recommendation of the CWB, establishes the per tonne initial payments (sometimes mistakenly called initial prices) for grain delivered to the CWB. This value is stated as an "in-store" Vancouver, British Columbia/St. Lawrence River price. (These are, in essence, advance payments at delivery on the expected final pooled returns.) Historically, the initial payments for the upcoming crop year were announced in advance of planting, normally in April, to allow farmers to adjust their seeding intentions. In 1991, however, the federal government changed its policy and initial payments are now announced in July, just prior to the beginning of the crop year. (The CWB has since introduced regular monthly pool return outlook (PRO) forecasts for the upcoming crop year, beginning in February, to provide farmers with market signals on which to base their planting decisions.) Separate initial payments are established for each class, grade, and (where applicable) protein level of wheat and for each class and grade of barley that reflect the expected market returns for the different grain

qualities. A farmer receives: (1) a per tonne initial payment for a given quality of grain that is delivered during the crop year; (2) adjustment payments if market returns turn out more positively than the CWB had forecast; and, once the crop year is over, (3) a final payment, less the CWB's costs (administrative expenses, interest costs, among others). Each producer receives the payment initially set (before freight deductions) no matter when the grain was sold to the CWB within a particular crop year.

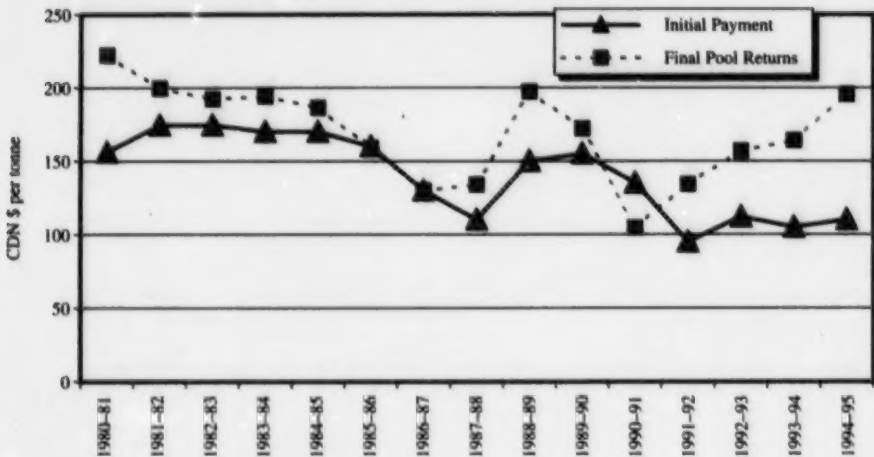
When delivering to the elevator for CWB accounts, producers' marketing costs are deducted in two stages. Freight costs, cleaning charges, and primary elevator-handling costs are deducted from the initial payment at the time of delivery. Other costs (such as interest, insurance, storage, and the CWB's operating costs) are charged against the pool before the final payment is made to farmers.

Beyond the pooling of sales returns, the CWB also coordinates producer deliveries to primary elevators through acreage-based delivery quotas, delivery contracts, and the calls to deliver (delivery calls) to producers who have signed delivery contracts with the CWB. These instruments are used to ensure that the kinds and quantities of CWB grain needed to meet sales are delivered when required, and that each producer gains access to the grain-handling system, the transportation systems, and to a fair share of available markets. At the time of harvest, farmers have to store grain at their own cost, since the CWB has to set the initial delivery calls at levels significantly below production in order to ration elevator and transportation capacity and to keep the logistical system fluid and efficient. Since the early 1970s, however, producers have generally been able to deliver all their saleable quantities over the course of a given crop year.

In terms of CWB payments that farmers see, the initial payment for each quality of grain is typically set at the beginning of the year at 70 to 75 percent of the total estimated pool return (EPR), that is, the final pooled payment that the CWB expects to receive from the market in that year for a particular quality of grain. As the year goes on and the marketing of CWB grain progresses, the CWB's overview of the state of the pool accounts becomes clearer. The CWB can usually make upward adjustments to the initial payments, such that by the last month of the crop year they may be at 90 to 95 percent of the total EPR. After the pool year is over, the CWB closes its pool accounts, may or may not make an interim payment to producers, and typically pays out a small final payment for each quality of grain.

Foreign critics of the CWB allege that massive subsidies are given to Canadian producers via CWB pricing. However, in only a few instances has the initial payment been set above actual CWB market returns (Figure 4.1). Over the history of the CWB, the amount of money the Canadian government has paid because of a deficit in the pool account (that is, when the initial grain payments have been set above actual CWB market returns) has been very small relative to CWB gross receipts.



**Figure 4.1 Wheat Pool Deficits from 1980/81–1994/95**

Source: Taken from Yildirim et al. 1998, p. 275.

## ECONOMICS OF A SINGLE-DESK SELLER

Because of the structure of producer marketing boards, theory suggests that producer returns are higher than they would be in the case of competition, or when pure middlemen (that is, firms that buy from producers and sell to consumers and make above-normal profits) exist in the marketing process.<sup>3</sup> Producer marketing boards work on behalf of producers, and any excess margin earned through price discrimination (that is, charging different prices for the same good in different markets), or through controlling output, will be returned to producers. This is not the case if middlemen control marketing. Middlemen pay producers lower prices and charge consumers higher prices. Because the middleman is both a monopolist (the single seller of the product) and a monopsonist (the single buyer of the product), the firm earns excess profits. A middleman will manufacture price instability by using commodity stocks to the detriment of producers: the antithesis of the middleman is a marketing board, such as the CWB.

In reality, there is neither a pure middleman nor a pure marketing board operating in the world grain trade; instead, the world grain trade is a blend of these two extremes. One must keep in mind several economic concepts and how these concepts apply to the CWB when examining the Board as a marketer in the world grain trade. A firm is a monopoly if it is the single supplier of a commodity. The CWB is not a monopolist because it is only one supplier of wheat, durum, and barley in the international marketplace. The CWB is not a monopolist, even though it is the only supplier of Canadian-produced wheat, durum, and barley for human consumption in

the domestic market, and even though it is the only supplier of Canadian wheat, durum, and barley in the international market. The difference is that the CWB does not market grain that originates in other exporting countries. As a result, it cannot be a pure monopolist of world grain exports. A pure monopolist would have the highest degree of market power because it would have the power to restrict supply in order to achieve the combination of price and quantity that would maximize its total profits. In order for a firm to hold pure monopoly power, it would have to control the entire supply of a commodity in an industry and control all of the commodities that could possibly be used as substitutes. Clearly, the CWB is not a pure monopolist because it does not restrict supply.

The role of the CWB, in pricing wheat in international markets, has been the subject of many investigations. Several investigators view international grain markets in an oligopolist framework. An oligopoly is a situation of imperfect competition in which an industry is dominated by a small number of suppliers. Within the context of oligopoly theory, a duopoly is an oligopoly with only two firms. A triopoly is an oligopoly with three firms. Some have argued that the CWB is an oligopolist. If this were true, the CWB would price above competitive levels.

McCalla (1966) postulates that international wheat markets can be viewed as a cooperative duopoly with Canada as the price leader and the United States as a silent partner that is accompanied by a fringe of competitive followers. His justification for suggesting this market structure is that, during the period of his investigation in 1956-1965, Canada and the United States had 60 percent of the world wheat export market, and only these two countries had sufficient storage facilities to permit that holding. This storage capacity, and the willingness of these two countries to hold stocks, support McCalla's concept of duopoly. From 1956 to 1965, the CWB was an integral component of Canada's role as price leader in the world wheat export markets.

Alaouze et al. (1978) extend McCalla's 1966 model. They argue that the increase in Australian wheat production during the 1960s, coupled with its policy of retaining almost no stocks, led to the price wars of 1965/66 and of 1968/69. Alaouze et al. (1978) argue that this disrupts McCalla's duopoly structure. They conclude that, as a direct result of these price wars, a triopoly emerged in the early 1970s in which Canada maximized producer revenue as a price leader. Further, they argue that the United States followed, and was prepared to initiate a price war with Australia if Canada and the United States did not receive a minimum acceptable joint share of the market. The implications of this market structure, with Canada as a price leader, indicate the benefits to Canadian producers from the single-desk status of the CWB.

This triopoly market structure may have been an accurate description of wheat markets during the 1970s. However, beginning in the early 1980s, the European Union became a major player in the market. The structure of the 1990s world wheat market can be more accurately depicted as a quadropoly in which Canada, the United States, Australia, and the European Union compete for wheat exports, recognizing that Argentina also plays a role. This quadropoly market structure also implies that the CWB could realize a higher price for Canadian producers. However, the price premiums realized under a quadropoly structure are lower than those realized under a triopoly, or under a duopoly.

U.S. and E.U. durum export trade shares have decreased while Canada's durum export trade shares have increased in the 1990s. Due to Canada's large export market share of durum wheat with the United States comprising a large portion of the remaining shares, some might suggest that a duopoly model may hold some relevance in international durum markets. Also, Canada and Australia, for example, held roughly 50 percent of the world barley export market and a much larger share of the malting barley market in 1996/97. Again, one might infer a triopoly-type market structure existed with Canada, Australia and the European Union as key players. There is little evidence, however, to support the hypothesis that a duopoly, or a triopoly, exists in either the durum, or the barley, trade. One wonders why the duopoly model could not work, especially in the durum wheat market, given the market structure that exists. The potential gains could be sizable, as pointed out by Koo et al. (1999) for durum wheat and by Schmitz et al. (1981) for bread wheat.

Even if one views the CWB as a monopolistic competitor, the CWB can still earn price premiums above what would exist in a perfectly competitive environment. Monopolistic competition is defined as a market structure in which there is a large number of sellers who are supplying goods that are close, but not perfect, substitutes. In such a market, each firm can exercise some effect on its price. The CWB is a monopolistic competitor in the sense that its grain is a close, but not perfect, substitute for grain from other countries, and that it competes with other grain companies in the United States and elsewhere. The CWB can receive price premiums because some countries, such as Japan, perceive the grain exported by the CWB is better for their needs than is the grain that originates elsewhere, for example, from the United States.

The CWB may be able to receive premiums in grain markets for other reasons. One reason, suggested by Carter (1992), is that the steady grain supply guaranteed by the CWB spreads the risk that grain-purchasing companies face in dealing with day-to-day transactions. If the CWB did not exist, higher variability in quantity, quality, and price might force purchasing companies to manage risk through the futures exchange. These companies would incur additional costs because of the coordination of information and the engagement of experts in the futures market. Hence, the presence of the CWB may be a lower cost solution for these companies than would alternative risk spreading, such as the use of the futures market. The CWB may be able to extract premiums from many of these companies, especially from maltsters and brewers who purchase malting barley and who are willing to pay for lower risk. It may also be the case that the CWB can obtain premiums simply because the MGCs charge higher margins. The CWB still can receive a premium if it undercuts the high margins charged by some of these MGCs. Also, the CWB can earn premiums because of government policies that distort international grain markets in different countries. (For example, the CWB can earn price premiums in the face of EEP because, in response to EEP, the CWB can price discriminate by charging higher prices in certain markets and lower prices in other markets in which it is necessary to compete against export subsidies.)

Some farmers have expressed concern over the deregulation of producer marketing boards and the power this would give to MGCs. They feel that if the export market were deregulated, farmers would lose a great deal of clout. Since the world

market is not a level playing field, without the single-desk selling by the CWB farmers would lose a valuable marketing arm. Export market deregulation gives a dangerous amount of market influence to MGCs who could force market prices to suit their needs.

## **EEP AND WORLD GRAIN MARKETS**

In order to analyze the effectiveness of a single-desk marketing system, one must account for the different agricultural policies in other exporting countries. Producer prices can differ between the United States and Canada because of these policy differences. Because of market glut and a loss in market share, the United States introduced EEP in the 1985 Farm Bill.<sup>4</sup> This considerably altered the pricing strategy of the CWB. The objectives of EEP were summarized by Haley et al. (1992) as follows: (1) each EEP offer must have the potential to develop, increase, or maintain markets for U.S. agricultural commodities; (2) EEP subsidies should help U.S. exporters displace the exports of subsidizing competitors in specific countries, but it should not have more than a minimal effect on nonsubsidizing competitors; and (3) the overall EEP program level and subsidies for individual EEP sales should be maintained at the minimum budget level necessary to achieve EEP's trade policy and export expansion goals.

Grain companies in the United States receive varying EEP bonuses depending on the sales of grain to certain international markets. These bonuses provide a refund to U.S. grain companies for their grain sales to those markets. Since EEP's inception, several countries have benefited from lower prices because of EEP subsidies on wheat, durum, and feed barley imports from the United States. Since 1993, a small number of countries also benefited from EEP subsidies on malting barley. Wheat and durum exports have accounted for approximately 80 percent of the total amount of EEP payments by the U.S. government, while barley has accounted for approximately 10 percent of total payments. The percentage of total exports covered by EEP is much higher for feed barley than for wheat and durum. Between 1985 and 1995 (with the exception of 1988 and 1989), virtually all feed barley export sales received substantial EEP bonuses. To show the impact of EEP, several empirical studies have been conducted. The following discusses some of these studies.

### **IMPACT OF EEP ON BARLEY MARKETS**

Haley et al. (1992) evaluated the performance of EEP for U.S. feed barley exports. Their analysis covers the 1986/87 and 1987/88 crop years, which were the first two years of EEP. They conclude that EEP likely caused U.S. barley prices to increase between U.S. \$6 and U.S. \$11 per ton in 1986/87, and between U.S. \$8 and U.S. \$13 per ton in 1987/88. For 1986/87, EEP was estimated to cause export prices to drop 5 percent, 3 percent, and 2 percent for Australia, Canada, and the European Economic Community, respectively. For 1987/88, EEP was estimated to cause the export prices of all competitors to drop about 2 percent. T. Schmitz and Koo (1996) and T. Schmitz et al. (1998) estimated that EEP caused U.S. barley prices to increase by roughly U.S. \$13 per tonne while Canada's prices fell by approximately U.S. \$7 per tonne.

## IMPACT OF EEP ON DURUM MARKETS

Carter and Schmitz (1992) theoretically demonstrated that EEP would cause increased durum sales to the United States. Furthermore, Alston et al. (1994a, 1994b, 1997) and Alston and Gray (1997) analyze the effect of EEP on Canadian durum sales. Their simulation model used a three-region model of durum production, consumption, policy, and trade. They assume that: (1) the CWB can discriminate among export markets; (2) the CWB's objective is to maximize revenue from the sale of the crop by equating marginal revenues across markets; and (3) the CWB behaves rationally in that it takes account of the U.S. government's policy response to its actions and of the response from the rest of the world. They show that: (1) if the Western Grain Transportation Act subsidies on durum were removed, Canadian durum exports to the United States would increase; (2) the removal of EEP would cause a large increase in the domestic use of U.S. durum, a decline in U.S. exports, and a significant fall in the price of U.S. durum; and (3) the removal of EEP would also cause Canadian exports to fall, along with Canadian durum prices. Overall, Canada would lose CDN \$10.1 million per year on durum wheat if EEP were eliminated.

Also, in a discussion of U.S. durum wheat pricing under EEP, and the Canadian response to that durum wheat pricing, Gardner and Gray (1995) make several interesting observations. They note that since its inception, EEP intended to win foreign wheat markets (such as North Africa) from the European Economic Community (E.E.C.) and was seen as a counter to E.E.C. export subsidies. The initially targeted markets were durum shipments to North Africa. Soon thereafter, South America and the former Soviet Union began receiving EEP subsidies. In 1993/94, however, U.S. durum exports went to Japan and Italy without subsidies. This created a two-tiered set of international durum wheat import markets—lower-priced markets in which durum was shipped inclusive of EEP subsidies and higher-priced markets in which durum was not directly affected by EEP subsidies. From the CWB's perspective, the existence of EEP created four distinct markets: (1) the Canadian domestic market; (2) the U.S. export market; (3) the nonsubsidized market (non EEP-subsidized export market, for example, the European Union and Japan); and (4) the subsidized (EEP) export markets. In response to these four market scenarios, the CWB decided how much wheat to sell, at what price to sell it, and in what market to sell its wheat in order for the CWB to return the highest average price for its producers. Price arbitrage, in conjunction with the EEP program, links the four markets. Gardner and Gray (1995) note that the f.o.b. U.S. durum wheat price, plus transporting and handling costs, is equal to the price of U.S. durum in non-EEP markets. The price in the EEP market is equal to the f.o.b. U.S. price plus transporting and handling costs minus the EEP bonus. The price of U.S. durum in Canada is the f.o.b. U.S. price plus transporting costs. Because of price arbitrage, the price of all U.S. durum wheat in each of these markets moves up and down together. They also note that the CWB must take into account that Canadian and American durum wheat are close substitutes for each other. The CWB uses its single-desk selling status to charge a different f.o.b. Canadian price in each market. In general, the Canadian market is the CWB's best market for sales because of lack of competition. The U.S. export and the non-EEP export markets are the next best markets for the CWB, depending on Canadian transportation costs

compared to American transportation costs to these markets. The EEP export markets are least favorable markets for the CWB. Since the EEP export market is large, the CWB has an incentive to sell durum directly into the U.S. market. Without the CWB, Canadian durum would flow into the Canadian, the American and the non-EEP markets until these prices were equal to those in the EEP market, or until the Canadian supply was exhausted (Gardner and Gray, 1995).

### **IMPACT OF EEP ON WHEAT MARKETS**

Haley and Skully (1995) analyze the criteria that U.S. policymakers use to selectively target export markets that receive EEP bonuses. They use aggregate wheat data (including durum) in the analysis that covers the 1986 to 1992 period. Various econometric techniques were used to rank the different EEP criteria according to the level of the corresponding coefficient of variation in each year. They show that in 1990 and 1991, an important aim of the U.S. wheat EEP export-targeting program was to displace Canadian wheat exports in importing countries in which Canada directly competes with the United States for export market share. That EEP significantly changed the pricing pattern in the world wheat markets cannot be disputed. For example, Gardner and Gray (1995) claim that by reducing the price of wheat in importing countries relative to the internal U.S. price, EEP increases the attractiveness of the U.S. market for Canadian exports. Changes in internal U.S. supply/demand conditions increased the demand for Canadian wheat in the 1990s, particularly for durum wheat. The resulting imports were politically contentious. Gardner and Gray (1995) also believe that both EEP and non-EEP supply/demand factors play a role in the changing wheat-pricing pattern, and estimate that EEP accounts for 40 to 50 percent of the increase of durum and other U.S. wheat imports from Canada. They also note that there is considerable uncertainty in this finding.

### **SINGLE-DESK SELLERS VERSUS MULTIPLE SELLERS**

Even without EEP, single-desk sellers, such as the CWB, can price discriminate even though the possibility for price discrimination increases with EEP. In the absence of single-desk sellers, these results would not apply since the "law of one price" would hold. That is, the price between markets would not differ by more than the cost of transportation, plus all tariff and non-tariff barriers. Kraft et al. (1996) relate the impact of single-desk selling when they compare single-desk sellers to a situation in which multiple sellers replace them. They demonstrate that the CWB earns significant price premiums in cases in which multiple sellers in Canada would not:

Competitive multiple sellers in the EEP environment would be willing to lower the Canadian price to importers until all the supplies were sold, i.e., at the market clearing price. At this point, all exporters would be sourcing grain at primary elevators at "street prices" that allowed them to transport it for sale to the lowest priced market and still make money.... This results in all buyers paying the same price, i.e., the "law of one price" holds.... Multiple sellers would establish a "street price" in primary elevators that would attract deliveries from farmers and allow them to make sales out of an export port at a profit. Sellers would immediately



realize whether they would be required to export volumes of wheat that would place them in markets where EEP and EU restitutions were available. The exporters would know that in order to compete, they would need to price competitively with United States and EU grain supplemented with subsidies. Thus, they would have to establish their street prices and export prices such that they were competitive with the EU and U.S. grain at seaboard position. All buyers would have access to Canadian wheat at the resulting export price ("street price" plus transport, handling and carrying). Even buyers who had been paying the commercial price for Canadian wheat would find willing sellers at the prevailing export price competitive to EEP. If any exporter tried to extract a higher price from any particular buyer, he would find that his competitor would receive the business instead. (42)

Clearly, if a country had 2 to 5 percent of the world wheat market, and multiple sellers were present in that market, the volume of trade would be insufficient to drive the price in non-EEP markets downward toward the price in EEP markets. Given that Canada has roughly 20 percent of the wheat export market, this volume would be sufficient to support the line of reasoning provided by Kraft et al. (1996):

There are several reasons why the CWB could achieve a premium over competitive wheat prices. First, some countries want to diversify their source of supply and may be prepared to pay a premium for Canadian wheat. Other factors, technical support, ocean freight spreads, credit availability, reliability and consistency of supply, may lead to brand loyalty premiums in a competitive market. This is a major objective of the CWB. There are both costs and benefits of grades and standards for wheat farmers. This study, however, is only interested in the benefits of the standards in that they make the purchasing of Canadian grain more attractive, as customers have confidence in the product they are receiving. This lowers the transaction cost between customers and the CWB. (28)

In their continental barley market analysis, Schmitz et al. (1993) reach a similar conclusion. The removal of the CWB as a single-desk seller significantly lowers price premiums on malting barley. To put the multiple sellers/single-desk seller debate into perspective, if it is believed that the CWB has market power in world grain markets (be it power due to a relatively large market share, or power due to product differentiation), then (all else remaining equal) the CWB system must perform better than a multiple-seller system. This is because the CWB has control over a large volume of grain that can be allocated to maximize total revenue on all sales of Canadian grain among markets. That is, it can capture additional economic rents through an optimal pricing strategy.

Some claim that, because of the CWB, there is a lack of buying competition at the farm gate. In order for this to be true, one would have to view the CWB as a monopsonist with respect to the purchase of grain for domestic consumption and export. The definition of a monopsony is that it is a market in which there is only one buyer. The CWB is not a buyer but an agent for the farmer. Since it is a seller of grain for domestic consumption and export, the CWB does not exert any monopsony pricing power over suppliers. A monopsonist exerts control over its suppliers by limiting the quantities it purchases to those which are below competitive levels in order to maximize its own profits. However, one of the mandates of the CWB is to maximize revenue accruing to producers, not to the CWB itself. This objective contradicts the assertion that the CWB is a monopsonist.



The CWB is a marketing board that is designed for Canadian grain producers. Since producers ultimately receive any additional revenue obtained by the CWB as part of their final payment in each year, the CWB cannot be construed as a monopsonist. Therefore, any reference to efficiency losses, due to the lack of buying competitiveness on the part of the CWB, would be incorrect. Within this context, why would the existence of a number of smaller Canadian firms increase the competitiveness, or the revenue, received by Canadian producers at the farm gate? As Harold and Rossmiller (1991) state, "In effect, the CWB will not take advantage of the producer, while the private grain traders have few qualms about lowering price offered to the producer and raising consumer price in order to increase their profit margin" (43).

One possible outcome of the removal of the CWB would be that the MGCs could take over the export marketing of prairie wheat and barley, as is currently the case for U.S. grains. These multi-national firms already have well-established offices in Canada, where they have primary elevators just as other private firms and cooperatives do. (Thus, it would not be too difficult for these firms to expand their purchasing activities in Canada.) In the United States, these large MGCs purchase most of their grain from cooperative agencies who, in turn, procure grain from local producers. In the absence of governmental regulation in Canada, however, the country elevator system currently in place would become increasingly dominated by MGCs. And thus, the relative role of cooperatives in grain handling in Canada would be diminished compared to their role in the United States. MGCs could well end up owning the majority of vertical market chains which extend from purchases from producers all the way through to final sales to end-users.

## SUMMARY

The CWB operates in a competitive business environment. It must compete with all other sellers of non-Canadian grain in markets around the world. In this environment it is generally recognized that the CWB can achieve price premiums over and above what would be achievable in either its absence, or in an environment in which the CWB would be competing with other sellers of Canadian wheat, durum and barley.

The ability of the CWB to capture premiums is based upon factors that include its ability to (1) price discriminate; (2) to take advantage of the risk management strategies of importers; and (3) to differentiate the Canadian product from its competitors based on the combination of quality and of customer service. In a Canadian environment that had many competing sellers of western Canadian grain, the CWB would lose these advantages, as well as its premiums. Many studies indicate that the CWB can capture a premium through price differentiation. These studies also show that the ability to capture premiums increases when world markets are affected by targeted export subsidies, such as those that have been used by the United States and the European Union. In a multiple-seller environment in which the CWB would be competing with other sellers of Canadian grain, the premiums associated with the CWB, as a single-desk seller, would disappear, because the "law of one price" would hold.

From a theoretical perspective, producers lose under a middleman market structure (that is, a market in which a grain firm buys from producers and sells to processors), but they gain under a producer marketing board. This is because a middleman maximizes profits for himself by gouging both producers and consumers: a producer marketing board maximizes returns for the producers it represents. As Harold and Rossmiller (1991) suggest, the CWB will not take advantage of the producer, but the private grain traders will not hesitate to lower the price offered to the producer and raise consumer prices in order to increase their profit margin (43). This presumes that grain markets are not perfectly competitive but instead are dominated by a few MGCs. Indeed, this is the case.

In the absence of the CWB, Canadian grain exports, like those in the United States, most likely would be under the control of MGCs. Adding Canada's grain volume to these MGCs would increase their market share and their potential for market power. In specific commodities, a few firms control a large share of the total world trade volume. (For example, Louis Dreyfus, Richco, and Toepfer are principals in 70 to 80 percent of the world trade in feed barley.) In an environment such as this, western Canadian farmers would be subject to even more control by the large MGCs.

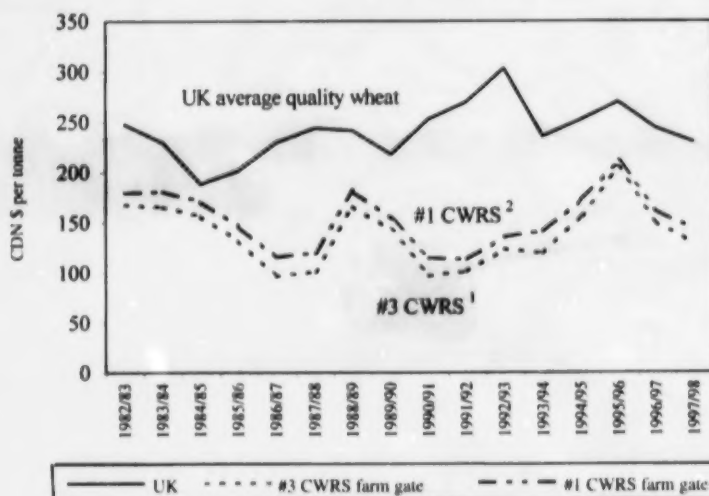
## NOTES

- 1 *Grain & Milling Annual 1999*, publication of *Milling and Baking News* (Kansas City, MO: Sosland Publishing Co.).
- 2 Sarahelen R. Thompson and Reynolds P. Dahl, *The Economic Performance of the Grain Export Industry*, Technical Report 325-1979, Minnesota Agricultural Experiment Station, University of Minnesota.
- 3 The theory of producer marketing boards has been discussed in several works including Bieri and Schmitz (1974), Just, Hueth and Schmitz (1982), Just, Schmitz and Zilberman (1979), McCalla and Josling (1981), and Schmitz et al. (1981).
- 4 The EEP was discontinued prior to the 1996 Farm Bill.

## CHAPTER 5

### GOVERNMENT AGRICULTURAL POLICY: THE UNITED STATES, THE EUROPEAN UNION AND CANADA

**United Kingdom and Canadian Farm Gate Prices for Wheat: 1982/83–1997/98**



<sup>1</sup> Number 3 grade Canadian Western Red Spring wheat

<sup>2</sup> Number 1 grade Canadian Western Red Spring wheat

Source: Home-Grown Cereals Authority Cereal Statistics and CWB Annual Reports, various years.

Background photo courtesy the Canadian Wheat Board

*Due to heavy government subsidies, wheat prices in the United Kingdom are almost three times those in Canada. At one time, the United Kingdom was a major importer of Canadian wheat but this is no longer the case.*

*Recent significant changes in agricultural policy are creating a new era for agriculture in both Canada and the United States, as well as new opportunities for agriculture trade. Both countries have benefited from the U.S.-Canada Free Trade Agreement which has been folded under the North American Free Trade Agreement (NAFTA). In Canada, the elimination of the transportation subsidies under the Western Grain Transportation Act and potential changes in the Western Canadian grain marketing system could affect Canadian agriculture. In the United States, the Federal Agriculture Improvement and Reform Act of 1996 is expected to further enhance the competitiveness of U.S. agriculture in world markets.*

— U.S. Department of Agriculture (1997)

**A**gricultural policies influence various aspects of the grain trade, from prices to trade volumes to market shares. Agricultural policies implemented in one country often have effects on the policies developed by competitor countries. The following chapter discusses key elements of grain policies for the United States, the European Union, and Canada, and implications for grain marketing and the operations of the CWB.

## **U.S. FARM POLICY**

### **KEY FEATURES AND THE 1985 FARM BILL**

U.S. farm bills are generally passed every five years. Prior to the 1996 Farm Bill, U.S. farm legislation depended on several key factors:

- target prices, deficiency payments, and set-aside provisions: target prices were established by Congress as price guarantees for farmers who participated in the program. Because market prices were often below target prices, farmers were paid the target price minus the market price in the form of a deficiency payment. However, to qualify for deficiency payment benefits, farmers had to honor set-aside provisions which stipulated that a certain percentage of land could not be planted.
- loan rates and non-recourse loans: a loan rate is the price per bushel at which the Commodity Credit Corporation (CCC) would provide non-recourse loans to farmers to hold program crops, such as wheat, for later sale. Under the 1985 Farm Bill, loan rates were reduced significantly and set well below target prices. The loan was termed a non-recourse loan because the government had no recourse but to accept the crop itself as a loan payment if the farmer refused to pay in cash. For example, if the market price fell below the loan rate, and it was time to pay the government, a farmer could deliver grain to a government representative and have it valued at the loan rate instead of selling it at the market price. Of course, if the market price were to rise above the loan rate, a farmer would normally be better off selling his grain at the market price and then paying his loan in cash.

In the mid- to late 1980s, additional features became part of the U.S. Farm Bill landscape: the Farmer-owned Reserve Program, Payment in Kind (PIK), the Conservation Reserve Program (CRP), and the Export Enhancement Program (EEP). To carry out these programs, the CCC played an even more prominent role in U.S. farm policy than it had previously. As a result of the CCC's increased involvement, the

United States became, essentially, a state trader (Schmitz et al., 1999).

- **The Farmer-owned Reserve Program.** This program, instituted in 1983, was designed to protect farmers against wheat and feed-grain shortfalls and to provide a buffer against unusually sharp price movements. Farmers placed grain in storage and received extended non-recourse loans for three years, with extensions as warranted by market conditions. Interest on loans could be waived, and farmers could receive annual storage payments from the government. Farmers could not take grain out of storage until the market price reached a specified release price, at which time, if they did not take grain from the reserve, farmers would have to pay storage and/or interest charges.
- **The PIK Program.** PIK was authorized under the Food Security Act of 1985 (the 1985 Farm Bill) to pay farmers with commodity certificates instead of cash in exchange for taking a percentage of land out of production. The CCC issued generic commodity certificates, denominated in cash amounts and backed by the commodities owned by the CCC.
- **EEP.** EEP was initiated in the 1985 Act to counteract growing grain surpluses. The program employed a two-step competitive bid process in which the CCC first targeted a country for a specific quantity of a commodity. U.S. exporters then had to compete for the sale to obtain a CCC bonus. The CCC evaluated the sale prices to determine if they fell into an acceptable range, and awarded bonuses to producers accordingly.
- **CRP.** The CRP was implemented largely as a conservation program, setting over 30 million acres of farmland aside.

### THE 1990 FARM BILL

In 1990, the United States passed a farm bill that replaced the 1985 Farm Bill, but the key elements of the old legislation remained. The new bill reduced target prices. For example, the target price for wheat was reduced from U.S. \$4.38 per bushel in 1986/87 to U.S. \$4.00 per bushel in 1990/91. In addition, the basic loan rate was to be lowered if the crops' stocks-to-use ratio was high. The loan rate could also be lowered, following the U.S. Secretary of Agriculture's discretion, to maintain competitiveness. Further, changes concerning the acreage for which farmers could receive government support affected deficiency payment eligibility. Also, farmers were permitted to pay farmer-owned reserve loans at any time.

The use of export subsidies was authorized under the 1985 Farm Bill. Among the provisions were the Targeted Export Assistance Program and EEP. These programs remained essentially unchanged under the 1990 Farm Bill, except that the Targeted Export Assistance Program was renamed the Market Promotion Program. The Targeted Export Assistance Program was established to offset the adverse effects of unfair trade practices on producers. EEP was established to expand exports and to offset the unfair trading practices of other nations. It effectively lowered export prices through the release of CCC-owned stocks to U.S. exporters who had verified export sales.

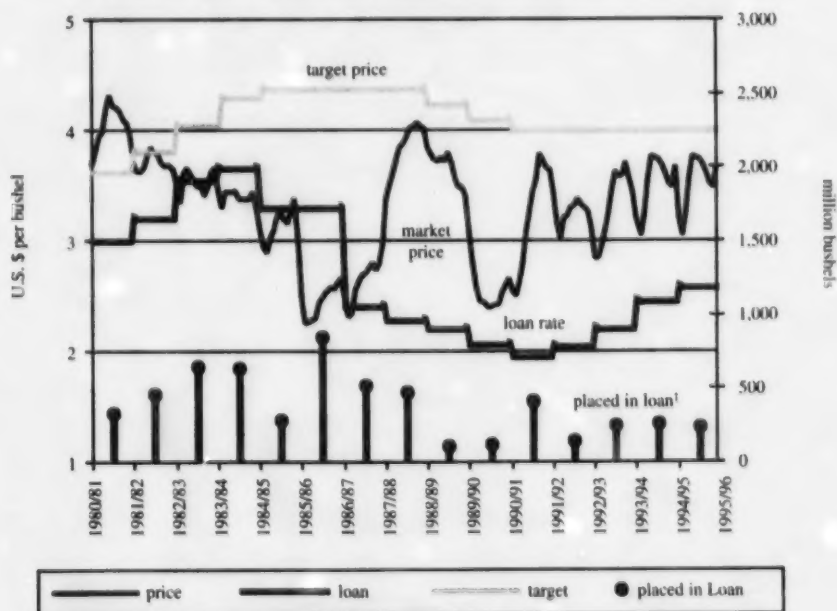
The 1985 Farm Bill had a strong conservation element—more than 30 million acres were put into CRP. The 1990 Farm Bill also focused on conservation and

additional acres were added under the general heading of Sustainable Agriculture and the Environment.

In summary, the 1990 Farm Bill reduced both target prices and the number of acres that qualified for deficiency payments. As with the 1985 Farm Bill, the 1990 Farm Bill continued to make money available for export subsidies and market promotion. Again following the 1985 Farm Bill, the 1990 Farm Bill retained a focus on conservation, adding new features to the 1985 legislation.

Figure 5.1 graphically demonstrates the historical relationship between CCC loan rates, market prices and target prices for U.S. wheat. As wheat prices declined in the first half of the 1980s, market prices first dropped below target prices and then below the CCC loan rates. The CCC's loan program had the effect of setting an arbitrary floor on U.S. wheat prices, since the agency was obligated to advance the loan rate to all growers who chose to deliver their crop to it when market prices were low. This resulted in nearly three billion bushels of wheat being placed in the CCC loan program between 1981 and 1986, and direct payments to wheat growers exceeding six billion dollars. In 1985 alone, over 840 million bushels of U.S. wheat were placed in the loan program.

**Figure 5.1 Target Prices, Loan Rates and Market Prices for U.S. Wheat and Wheat Placed in the CCC Loan Programs, 1980/81–1995/96**



<sup>1</sup> Quantities placed in loan are for the calendar year, others are for a June/May crop year.

Source: USDA, ERS, *Wheat Yearbook*, March 1999.



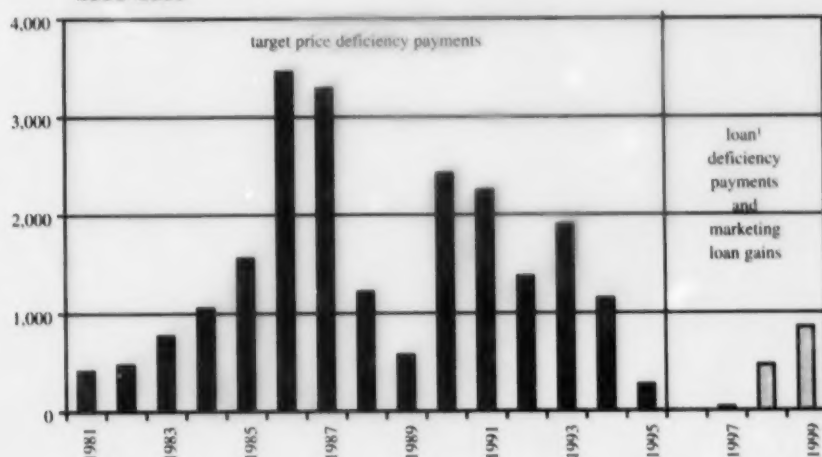
When loan rates were reduced in 1985 the quantity of wheat placed in that program declined substantially. Since target prices were not reduced, deficiency payments to farmers remained high (Figure 5.2).

When world wheat prices dropped below CCC loan rates, the United States' share of global export sales dried up. This result was the incentive for the subsequent implementation of EEP, which compensated commodity brokers for exporting U.S. wheat to foreign countries when world prices were lower than U.S. prices. EEP payments totaled U.S. \$4.8 billion for 1985 through 1994 (Figure 5.3). EEP payments were highest in 1988 and 1992.

### **THE 1996 FARM BILL**

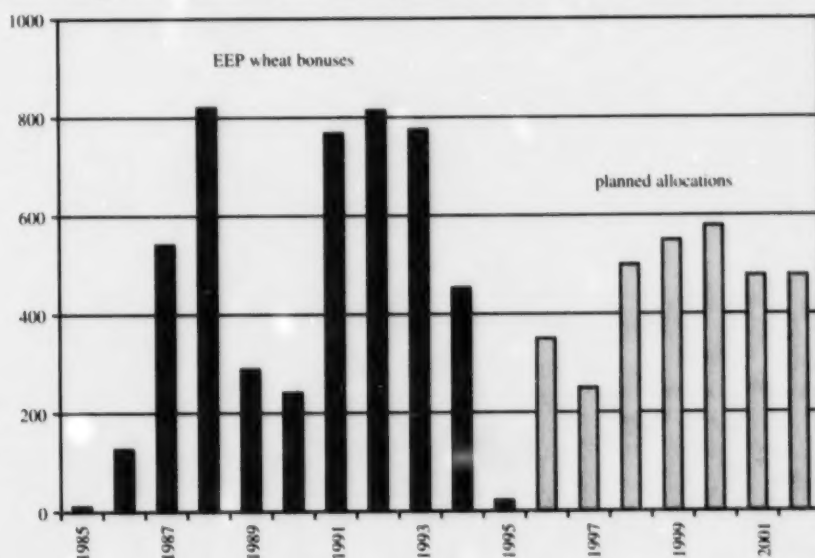
In 1996, the United States passed a new farm bill, the Federal Agricultural Improvement and Reform Act (FAIR) that made sweeping changes in farm policy. FAIR, a seven-year act that covers crop years 1995/96 through 2001/02, contains the following:

- eliminate target prices, deficiency payments, the acreage reduction program, and mandatory crop insurance;
- replace deficiency payments with Market Transition Payments on 85 percent of the contract acres, which are defined as the base acreage plus CRP land that is coming out of the contract;
- permit haying, grazing, and planting crops (such as alfalfa) with no penalty, although conservation compliance is required;
- reduce the market transition payment limit from U.S. \$50,000 to U.S. \$40,000;
- retain loan rates and marketing loans. There was a major change to the loan program in the 1996 Farm Bill. Under the 1990 loan program, farmers had to repay the loan at the loan-rate price. Under the 1996 program, farmers could repay the loan at the lower of the market price or the loan-rate price;
- cap the CRP at the current level of 36.4 million acres. Provide, with some restrictions, an early out for producers who have been in the CRP for at least five years, as long as a sixty-day notice is given;
- expand the Wetlands Reserve Program (WRP). Provide cost-sharing to overcome environmental problems incidental to normal production practices through new programs, such as the Environmental Quality Incentive Program (EQIP);
- establish a farmland preservation program;
- make crop insurance voluntary, but require a waiver by producers for disaster assistance;
- establish a Fund for Rural America to provide U.S. \$100 million for research, U.S. \$100 million for development, and U.S. \$100 million to be spent at the U.S. Secretary of Agriculture's discretion in either category;
- fund EEP to levels commensurate with General Agreement on Tariffs and Trade (GATT) levels. Rename the Market Promotion Program as the Market Access Program (MAP) and fund it at U.S. \$90 million per year;

**Figure 5.2 U.S. Wheat Deficiency Payments and Loan Marketing Gains (all classes), 1981–1999**

¹ 1999 Projected

Source: USDA, FSA, *Commodity Fact Sheet, Wheat*, November 1998 and USDA, FSA, *EPAS*.

**Figure 5.3 Export Enhancement Bonus Payments for U.S. Wheat, 1985–2002**

Source: U.S. General Accounting Office, *Report GAO/RCED-94-79, 1985–94*; USDA, *ERS Agricultural Outlook Supplement*, April 1996, 1995–2002.

- establish a Commission on 21st Century Agriculture to study the impacts of the FAIR Act and to assess government's changing role in developing and implementing farm policy;
- reauthorize food stamp and nutrition programs for two years, largely in anticipation of Congress completing welfare reform and developing a strategy to shift control of these programs to the states.

### **FAIR IN ACTION**

One of the frustrations for U.S. policymakers has been the decline in U.S. export market shares, especially for wheat. U.S. wheat export shares fell from roughly 48 percent in the early 1980s to roughly 30 percent through the late 1990s. This decline in export shares occurred in spite of massive EEP export subsidies. This situation is even worse when one considers U.S. wheat stocks. In the presence of FAIR, U.S. wheat stocks have far exceeded wheat stock levels prior to FAIR. The FAIR program, along with restitution payments instituted by the European Union, caused considerable hardships for Canadian grain producers, even though the CWB commands the highest price premiums when targeted export subsidies are used by other countries.

Because of rising U.S. grain prices in the early to mid-1990s, EEP payments were significantly reduced (Figure 5.3). However, since grain prices softened again in 1998, a great deal of pressure exists to use EEP. Clearly, the United States could use EEP in the future if grain prices soften. The 1996 FAIR Act made significant EEP monies available, with expenditures capped at U.S. \$350 million in fiscal 1996, U.S. \$250 million in 1997, U.S. \$500 million in 1998, U.S. \$550 in 1999, U.S. \$579 million in 2000, and U.S. \$478 million for 2001 and 2002 (Figure 5.3). Also, FAIR allows the U.S. Secretary of Agriculture to make available up to U.S. \$100 million annually for the sale of intermediate-value products to attain the volume of intermediate agricultural products exported by the United States during the Uruguay Round base period years of 1986 through 1990. According to U.S. Agriculture Secretary Glickman, these allocations are fully consistent with the Uruguay Round export subsidy reduction commitments and support USDA's continuing efforts in market development.

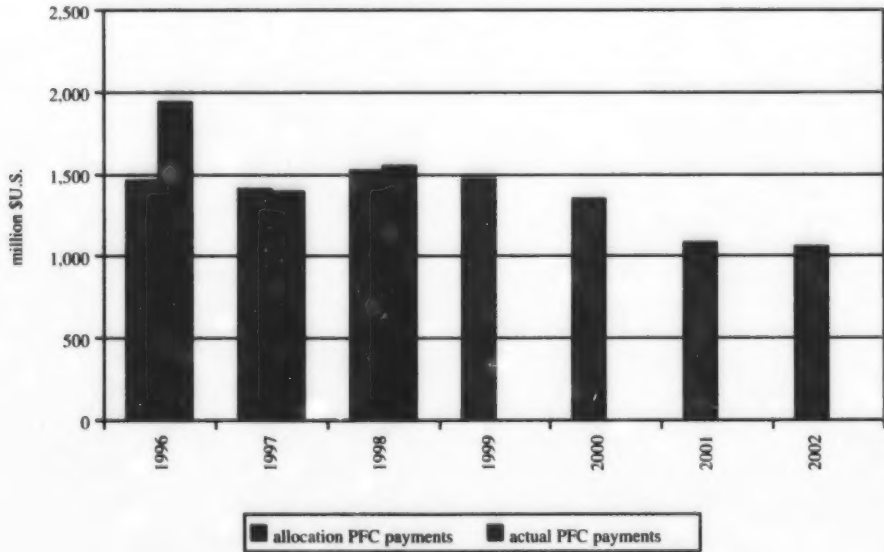
Until the late 1990s, it appeared that the U.S. FAIR program might go down in history as the richest farm bill ever passed. In addition to receiving high prices for wheat in the past, farmers received, and will continue to receive, significant production flexibility contract payments (Figure 5.4); however, prices collapsed in the late 1990s, reducing the attractiveness of FAIR for producers. Cumulative outlays for contract payments for fiscal 1996–2002 are fixed at over U.S. \$10 billion. Production flexibility contracts remove the link between income support payments and farm prices by providing for seven annual fixed, but declining, payments. Under this provision, participating producers may receive government payments largely independent of farm prices, in contrast to previous deficiency payments which were dependent on farm prices. Pressure from farm groups resulted in the U.S. Senate passing a U.S. \$7.5 billion farm aid package in mid-1999. Congress did introduce an aid package in late 1999, which resulted in a doubling of contract payments to farmers (*Feedstuffs*, August 9, 1999: 1).

Although FAIR ostensibly did away with the market-price-based support system, through the creation of production flexibility contracts, government payments to

wheat farmers continued. While target prices were eliminated, FAIR retained loan rate provisions from earlier farm bills with some modifications. The federal government continues to make payouts in the form of loan deficiency payments and marketing loan gains when the market price falls below the loan rate (Figure 5.2), but the procedure has changed so as to no longer create a floor for U.S. wheat prices. The new loan provisions allow growers to pay back non-recourse loans at lower rates. This reduces loan forfeitures and reduces the accumulations of government stocks. Producers who place wheat in the loan program no longer relinquish ownership of the grain, and are allowed to market the grain at the prevailing market price. Subsequently when the loans come due they receive a marketing loan gain.<sup>1</sup> In fact, producers who do not use the loan provisions may still receive loan deficiency payments equivalent to the marketing loan gain.

From an international trading perspective, one must remember the past conflicts that have arisen between Canada and the United States concerning Canadian grain exports to the United States. For example, in response to EEP, the CWB made significant increases in durum sales into the U.S. market, and the United States countered with import quotas. As Canada increases exports of wheat and barley into the U.S. market, quotas will continue to be an issue, along with other forms of retaliatory action by the United States.

**Figure 5.4    Actual Versus Allocated Production Flexibility Contract (PFC) Payments for U.S. Wheat, 1996–2002**



Source: USDA, FSA Commodity Fact Sheet, Wheat, November 1998.

## THE EUROPEAN UNION

A major player in the world grain trade is the European Union. Largely because of its Common Agricultural Policy (CAP), the European Union has become a major wheat exporter, at times exceeding CWB sales. Carter and Schmitz (1979) point out that, as a result of CAP, the European Union was able to exercise market power through the use of the optimal tariff. Consumer costs from CAP were more than offset by a combination of producer gains and government tariff revenue. CAP is characterized by four main components: (1) intervention support prices; (2) export subsidies; (3) variable import levies; and (4) domestic support prices.

The intervention price is the market floor price at which intervention agencies must buy all wheat (as well as barley, corn and rye) offered to them, provided it meets the required minimum quality, in a specific time period. The grain is stored in facilities in each country until the European Commission decides to resell it either domestically or for export. To maintain the level of market prices within the European Community, excess supplies may be sold into the world market with the aid of export refunds (or restitution payments). Refunds are equal to the difference between EU internal market prices and prices prevailing in world markets.

Variable import levels are calculated based on the difference between a landed (c.i.f.) value for U.S. wheat minus a reference price (previously called the threshold price). If the landed price is below the reference price, a duty is applied. The reference price is 155 percent of the intervention price ( $119.19 \times 155 = 184.74$  Euro/tonne). The levy is set to ensure that lower-priced imports do not enter the European Community at less than the reference price. Finally, producers receive direct area payments, known as compensation payments, which are based on historical average yields and area sown. To be eligible for these payments, producers must set aside the required percentage of land in a given year. In 1998–99, that level was set at 10 percent.

The CAP has created conditions for agricultural expansion far greater than had been foreseen. Reforms attempting to deal with resulting surpluses and rapidly rising agriculture budgets go back, at least, to the Manholt Plan of 1968. More restrictive price policy and production restraints have been instituted to reduce the rate of output expansion. For wheat, the Council of Agricultural Ministers lowered nominal prices in 1984/85 for the first time. It set a guarantee threshold for cereals, including wheat, that limited the quantity eligible for price support. Further, the Council Agreement of 1986/87 added a co-responsibility levy for cereals. Other output-restricting measures include voluntary land set-asides, more emphasis on quality, and greater budgetary discipline, especially on Guarantee Section expenditures now in place.

Through its export restitution system, the European Union directly influences the terms of sale for wheat sold externally. The export refund is the primary instrument used to bridge the gap between higher internal market prices and lower world market prices. The Cereals Management Committee of the European Commission entertains tenders from exporters for moving wheat into the export market. It does not, however, enter into contracting arrangements; instead, it leaves operational details to commercial grain traders. The Commission intervenes in the domestic market when internal prices drop to specified levels.<sup>2</sup> The intervention system establishes rules for the purchase of

wheat offered into intervention at the wholesale level. The intervention price, set annually by the Council, is the floor price at which intervention agencies must buy all wheat offered to them during specified periods of time, subject to minimum quality standards. The Cereals Management Committee sets the export refund weekly in order to export a certain amount of wheat. New commercial exporters bid for a specific refund for a fixed quantity; the bid is either accepted by the Commission or not.

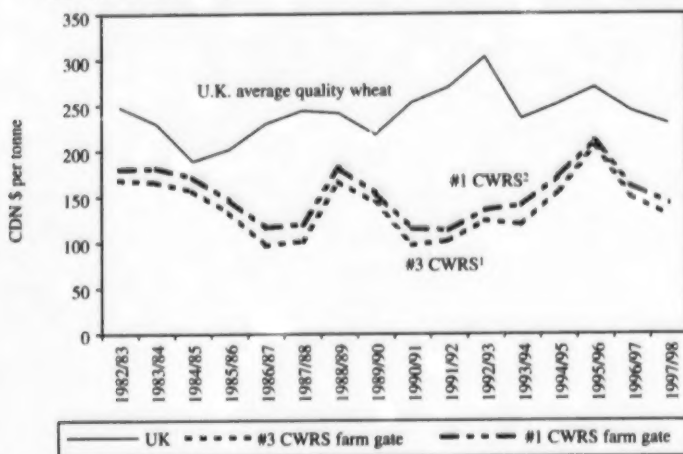
Licenses are required for both the import and export of grain. When issued, the export license specifies an export quantity and the amount of the refund. Licenses can be bought, sold, or traded among the commercial exporters. The trader that receives the tender award has to export to one of the countries, indicated by zones, in the tender-opening regulation. The Commission itself does not conclude any grain contracts; rather, it operates through a tendering system that functions in several ways. Under the basic tender system, commercial grain exporters request an export refund for a specific quantity of wheat. The Commission could receive as many as fifty requests in a given tendering period and must decide on which to accept. A different tendering procedure is used to sell European Community-owned wheat from intervention stocks. In this case the Commission fixes the selling price near the world market level and absorbs the loss from a higher buy-in price. The successful exporters are issued export licenses and, in the case of exports out of intervention stocks, must post a security equal to the difference between the tendered price (world market) and the intervention price to ensure that the grain is exported. The Commission also reimburses the exporter for transport costs between the silo and the port of shipment (Mangum, 1991).

Unlike most other countries, the European Union has made significant strides in wheat production. Yields in Canada and the United States have remained relatively flat while the E.U. yields, since 1975, have more than tripled. The dramatic increase in E.U. yields is, in part, due to the fact that the European Union has emphasized high-yield, though medium-quality, wheat. Increased production is also indebted to the high price supports the European Union has in place. Figure 5.5 plots Canadian wheat prices and E.U. price support levels. Note that in 1998, E.U. prices were at least double the Canadian levels.

## CANADIAN AGRICULTURAL PROGRAMS

A wide range of programs have been used in Canada, many of which were instituted in response to the 1985 U.S. Farm Bill. Of specific importance to Canadian programs was the significant reduction in loan rates on major commodities given under the U.S. 1985 Farm Bill. The loan rate for wheat, for example, was reduced from U.S. \$3.20 per bushel to U.S. \$2.20 per bushel. From a Canadian perspective, this meant that the prices in competing export markets were lowered by approximately U.S. \$1.00 per bushel. The following is a brief description of the more important Canadian agricultural programs. The net transfer to prairie producers from government programs for 1949-94 is shown in Figure 5.6.

**Figure 5.5 United Kingdom and Canadian Farm Gate Prices for Wheat, 1982/83–1997/98**

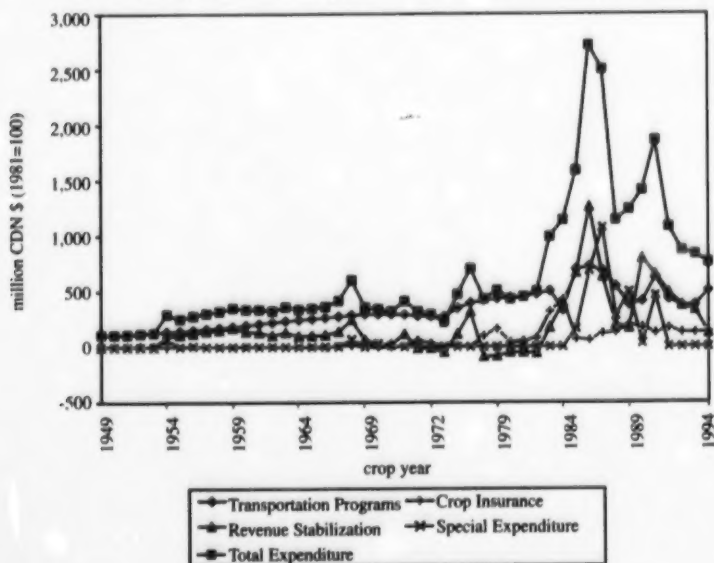


<sup>1</sup> Number 3 grade Canadian Western Red Spring wheat.

<sup>2</sup> Number 1 grade Canadian Western Red Spring wheat.

Source: HGCA Cereal Statistics and CWB Annual Reports, various years.

**Figure 5.6 Canadian Agricultural Support Program Expenditures, 1949–1994**



Source: Yildirim et al., 1998.



### **WESTERN GRAIN TRANSPORTATION ACT**

In 1983, under this Act, the Canadian government provided rail companies with an annual payment as high as CDN \$658 million (plus an inflationary index) to cover the transportation of eligible grain shipments to select shipping terminals.

### **WESTERN GRAIN STABILIZATION ACT**

This voluntary program, terminated in the early 1990s, allowed farmers to contribute a percentage of their gross sales to a stabilization fund. The Canadian government contributed to the fund by matching approximately 50 percent of the producer contribution. The program was designed to pay out when net cash receipts from the seven major grains produced in the prairie region fell below 90 percent of the five-year average net cash flow. Payouts to the prairie region equaled CDN \$223 million, CDN \$522 million, CDN \$859 million, and CDN \$1.4 billion for crop years 1983/84 through 1986/87, respectively. In 1987 it was necessary for the federal government to inject CDN \$750 million into the fund to offset the large deficit.

### **CROP INSURANCE ACT**

Passed in 1959, this was a voluntary production guarantee program. Producers paid premiums that were matched by the federal government, and provincial governments paid the administrative costs.

### **SPECIAL CANADIAN GRAINS PROGRAM (SCGP)**

This program was introduced in 1986 to facilitate a CDN \$1 billion transfer from the federal government to Canadian grain and oilseed producers. The transfer was to offset the loss incurred by producers that resulted from the subsidy war between the United States and the European Union. An additional CDN \$1.1 billion was paid out in 1987 as part of the same program.

### **GROSS REVENUE INSURANCE PROGRAM (GRIP) AND THE NET INCOME STABILIZATION ACCOUNT (NISA)**

In 1991, the federal government established GRIP and NISA to replace both crop insurance and the Western Grain Stabilization Act.

GRIP was one component of the new safety-net program for farmers. It went a step beyond crop insurance by offering farmers both yield and price protection. Revenue protection premiums were shared by farmers, the provinces, and the federal government. The price guarantee on crops was based on a fifteen-year moving average of past prices. In addition, farmers were guaranteed a minimum yield based on an area average. Farmers could use individual farm coverage yields, however, if they were above the area average. Saskatchewan withdrew from the program in 1995; Alberta and Manitoba withdrew in 1996 and 1997 respectively.

NISA enabled farmers to set money aside, subject to a limit cap, in a personal income stabilization account from which they could draw during difficult times. At this time, a farmer can set aside up to 3 percent in an individual account to be matched by the federal and provincial governments. The program triggered payments when a farm's gross margin fell below the five-year average or when the net income fell below \$10,000.

In addition to the major programs discussed above, there were other minor and/or short-lived programs that deserve some attention, including the Temporary Wheat Reserve Act, the Lower Inventory for Tomorrow Program, and the Two-Price Wheat System. As a result of increased Canadian wheat production and an increase in the world wheat supply, the Temporary Wheat Reserve Act was tabled in 1956 to compensate farmers for grain storage costs. It continued through to 1970, and helped increase elevator storage revenue and made possible the construction of additional storage facilities on the Prairies.

In 1970, because of large wheat surpluses, the Canadian government attempted to reduce stocks through the Lower Inventory for Tomorrow Program (encouraging farmers to reduce their seeded acreage), which lasted only one year. During that year, seeded acreage fell to 4.9 million hectares compared to the 9.9 million hectares seeded in 1969.

The Two-Price Wheat System was introduced in 1967 to stabilize the price of wheat to Canadian producers and consumers. Until 1986, under this System, domestic prices were allowed to move within a certain range. If Canadian wheat export prices fell below a specified floor price, Canadian millers paid the floor price. If the export price rose above a specified ceiling, then millers paid only the ceiling price. However, in August 1986, the revised domestic wheat policy allowed the CWB to establish a domestic price anywhere between CDN \$220 and CDN \$404 per tonne. The domestic price was set at CDN \$257 per tonne. Because of the free trade agreement signed between Canada and the United States (CUSTA), the Two-Price Wheat System was abolished on August 1, 1988.

In light of the ever-changing demands placed on policymakers and producers by the world grain market, many of the above programs have been altered or eliminated entirely.

- **Western Grain Transportation Act.** Enacted in 1983, this Act provided a transportation subsidy on the movement of grain and grain products from prairie points to Vancouver and Prince Rupert, British Columbia; Thunder Bay, Ontario; and Churchill, Manitoba. When it was repealed on August 1, 1995, grain and grain products were placed under the National Transportation Act of 1987. The subsidy was eliminated and producers were paid lump-sum compensatory payments in 1996 called the Crow Benefit.
- **Western Grain Stabilization Act.** Tabled in 1975, this Act provided a grain safety-net program that paid producers when the net cash receipts from the seven major grains fell below 90 percent of the preceding five-year average. The program was terminated in 1991 when the Act was repealed by the passage of the Farm Income Protection Act, an agreement between the Canadian government and the provinces to provide income for farmers.
- **Crop Insurance Act.** Producers and the federal government shared insurance costs until 1989, when federal/provincial cost-sharing changes were implemented, establishing a tripartite program paid for by producers and by the provincial and federal governments.
- **Feed Freight Assistance Act.** Initially passed in 1941, this Act was designed to promote livestock production in feed deficit regions and to expand the market for

western feed grains. A transportation subsidy was provided on grain movement between Thunder Bay, Ontario, and eastern Canadian points, and between British Columbia and western prairie points. The program was administered by the Livestock Feed Board of Canada, a crown corporation established under the Livestock Feed Assistance Act in 1967. On February 27, 1995, the Minister of Agriculture repealed the Feed Freight Assistance Act and the Western Grain Transportation Act.

## POLICY INTERDEPENDENCE

A policy change in one country may initiate policy responses by its competitors. Consider, for example, Canadian and other exporter responses to the 1985 U.S. Farm Bill when the United States reduced its loan rate. If exporting countries, including Canada, had not responded to the U.S. policy actions, farmers would have felt the effects of lower market prices almost immediately.

Many of the countries responded in at least two ways: (1) they lowered prices to meet their U.S. competition. For example, the European Union lowered export prices, making up the revenue shortfall for their farmers through restitution payments. Dependence on restitution payments, in this case, led to the "subsidy war" between the United States and the European Union; (2) governments introduced farm policies to cushion the price drop that was triggered by the change in U.S. policy. Carter et al. (1989) discuss Canada's response to the drop in the U.S. loan rate:

The CWB lowered initial payments by C\$30/ton (\$0.82/bushel) for 1986/87; they were further reduced by C\$20/ton for 1987/88. The second response was Canada's Special Grain Program, announced on December 9, 1986, which was a one-time deficiency payment of C\$1 billion. Then a second set of payments—this time, in excess of C\$1 billion—was announced in December 1987. Furthermore, the federal government bore the costs of deficits in pool accounts and in the Western Grain Stabilization Fund. Thus a significant portion of the costs of adjustment was shifted from the Board and from farmers to the federal government. (37)

When the United States introduced EEP in the 1985 Farm Bill, its aim was to expand exports worldwide. Increased allocations to EEP were made in 1987, and additional countries, such as the Soviet Union and China, became eligible for EEP payments. As a result, Canada and others were confronted with directly subsidized competition in traditional CPE markets. Canada responded by lowering wheat prices and by providing income support to its producers.

It is imperative to keep in mind the specific policies in place at any time when discussing the performance of the CWB, for they affect price, trade patterns, and CWB pricing strategies. The impact of policy on prices and trade patterns is illustrated in the Kraft et al. (1996) study on price premiums earned by the CWB. Two periods stand out: (1) the crop years 1980/81–1984/85 represent the end of an era which began in the early 1970s. It was a period of strong and growing demand for cereal grains around the world. At least until the mid-1980s, world production had difficulty keeping up with rapidly expanding consumption; (2) the crop years 1985/86–1993/94, during which

the use of export subsidies by the United States, through EEP, and by the European Union, through the E.U. export restitution system, was prevalent.

In response to these programs, other major wheat exporters like Canada, Australia, and Argentina changed their trade and production patterns markedly. The presence of EEP and the European export restitution program over the 1985–1994 period added a new level of complexity to the world wheat trade. Both of these programs lowered the prices at which eligible importing countries could purchase grain. At the same time, importing countries not eligible for these subsidies, or those unwilling to purchase lower quality E.U. wheat, paid significantly higher prices. The E.U. restitution program, and particularly the introduction of EEP in 1985, created a world wheat market in which multiple prices prevailed. Japan paid a much higher price for wheat, for example, than did China.

This tiered pricing had a significant effect on the trade flow of grains. For instance, countries like Algeria and China, among others, saw their landed import price from the United States fall by as much as U.S. \$60 per tonne in some years due to EEP. However, while prices in these markets fell dramatically, prices in markets not eligible for subsidies (for example, the United States, Europe, Japan, Thailand and Malaysia) remained largely unaffected. The CWB reacted by lowering prices charged to selected markets, which were eligible for export subsidies, in order to meet the competition. At the same time, the CWB increased sales to higher return markets in an attempt to minimize the impact of EEP and E.U. export restitution payments on western Canadian farmers (Kraft et al, 1996).

## SUMMARY

Dominated by large multinational grain companies and state trading enterprises, the world grain market is a long way from the textbook example of a free and open market. It must be stressed that any examination of MGCs and STEs like the CWB needs to occur within the context of current governmental policies at home and abroad. As is clear above, policies change, appear in different forms, and sometimes disappear entirely. With each change comes the rippling effect of further changes, each impacting, to a greater or lesser degree, on local and world markets.

Government policies have changed drastically over the last few years. For example, in the 1996 U.S. Farm Bill, the target price, but not the loan rate provision, was removed. In addition, since June 1995, the U.S. has not used export subsidies to any degree on U.S. wheat, durum, and barley exports. The United States and the European Union, however, continue to allocate funds for export subsidies and may resume using these subsidies. The presence of these types of government policies and subsidies highlights the fact that there is no free and open market for grain. In this environment, the ability of the CWB to extract price premiums for western Canadian farmers increases.

It is important to stress that, while target prices were eliminated under the 1996 Farm Bill, the loan rate provision from the earlier farm bills remained intact. Because of the low grain prices in 1998, there have been instances of payouts by the U.S. federal

government in which market prices have actually fallen below the loan rate. In response to low prices the U.S. government, in late 1999, approved a multi-billion dollar bailout for U.S. farmers which was in addition to the seven-year production contract payment under the 1996 Farm Bill.

Also, from an international trading perspective, one must remember the past conflicts that have arisen between Canada and the United States concerning Canadian grain exports to the United States. For example, in response to EEP, the CWB made significant increases in durum sales into the U.S. market. As a result, the United States countered with import quotas. The quota issue will always arise as Canada increases exports of wheat and barley into the U.S. market.

## NOTES

- 1 The marketing loan gain rate equals the amount by which the applicable loan rate exceeds the market loan repayment rate for the respective loan.
- 2 Technically, it is the Grains Management Committee of the European Commission (referred to throughout this study as the Commission) that is the relevant committee.



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## CHAPTER 6

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# THE CWB, STATE TRADING, AND THE WORLD TRADE ORGANIZATION

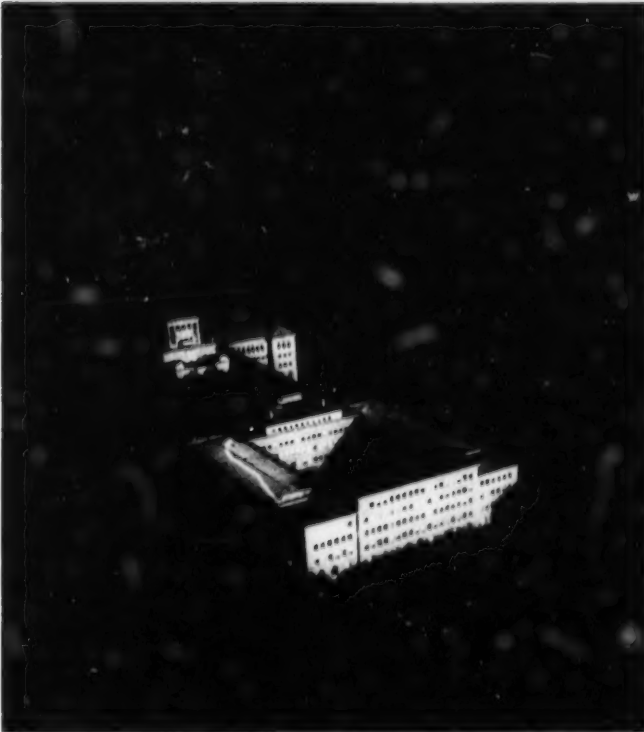


Photo courtesy the World Trade Organization.

*The World Trade Organization, located in Geneva, Switzerland, oversees international trade and is seriously challenging the CWB because of its trading policies.*



*The Uruguay Round of GATT (General Agreement on Tariffs and Trade) negotiations made substantial progress in reducing barriers to agricultural trade in the areas of market access, export subsidies, domestic support, and phytosanitary measures. Even as the implementation of the Uruguay Round agreement advances, several issues have come to the forefront as "unfinished business." One of the key focal points likely to emerge for future negotiations is that of state trading enterprises (such as the CWB).*

— Dixit and Josling (1997)

## WHAT ARE STATE TRADING ENTERPRISES?

There are several definitions of state trading enterprises (STEs). One definition has been given by Fulton et al. (1999): "STEs are state-sanctioned institutions (that is, state-authorized institutions) and associated activities that influence the quantities, prices or the direction of trade in internationally traded goods" (10). Organizations that are given special rights and powers by legislation fall into the above definition. Another common definition, as reported by the U.S. General Accounting Office (GAO, 1996), that was agreed upon as a result of the Uruguay Round was "governmental and nongovernmental enterprises, including marketing boards, which have been granted exclusive or special rights or privileges, including statutory or constitutional powers, in the exercise of which they influence, through their purchases or sales, the level or direction of imports or exports" (16).

Examples of STEs include the Australian Wheat Board (AWB), the New Zealand Dairy Board (NZDB), the Japan Food Agency (JFA), the China National Cereals, Oils, and Foodstuffs Import and Export Corporation (COFCO), the Canadian Wheat Board (CWB) and, at times, the U.S. Commodity Credit Corporation (CCC). The European Union is also a state trader through its use of export restitution payments (that is, export subsidies). Consequently, there are both STE exporters and STE importers that affect the agriculture and food trade.

## THE SCOPE OF STATE TRADING IN WHEAT

Among the state trading exporters in wheat are the European Union, Canada, Australia, and at times, the United States. These countries comprise more than 80 percent of the world wheat export market. Unlike Canada and Australia, the European Union and the United States do not sell wheat through institutions that have single-desk monopoly status over the sale of wheat in export markets. Instead, they effectively determine destinations of sales through the granting of targeted export subsidies. During the 1990 through 1994 period, state trading exporters were involved in more than 90 percent of total wheat exports.

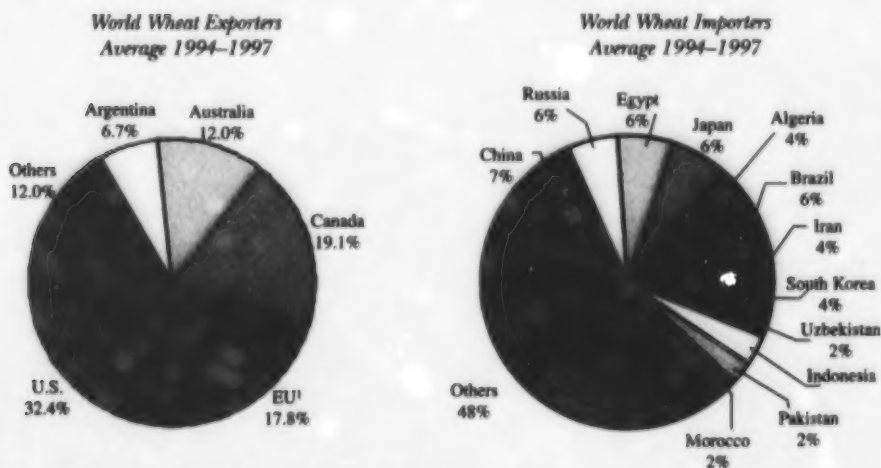
The CWB and the AWB are, in essence, monopoly marketing boards for Canadian and Australian exports of wheat. These boards are not policy arms of government. On the other hand, in the United States for example, the CCC is a policy arm of the U.S. government, and operates as an STE when it purchases U.S. grain and

sells or dispenses U.S. grain, especially with the aid of EEP. Among the state trading importers of wheat are the JFA, Iran, Algeria, Egypt, and COFCO. The state trading activities of each major player in the wheat trade determine the economic performance of the system. For example, the use of EEP and E.U. restitution payments influences the pricing decisions of the major players.

Both state trading importers and state trading exporters of wheat play a large role in the international trade of wheat. The largest state trading importers during the 1994–97 period were China, Egypt, and Japan, while the largest exporters were Canada, Australia, and the European Union (Figure 6.1). (The United States was a state trading exporter during the period when EEP subsidies were in place.) According to Young (1999):

State trading importers grew markedly in importance in the 1950s and 1960s. However, over the past ten years there has been a marked decline in the role that state trading enterprises play in these markets. Many governments have eliminated their state trading enterprises or reformed them by allowing private traders to import grain as well. In 1996, around 40 percent of wheat was imported by countries that are identified as having either STEs with a monopoly on wheat imports or STEs that heavily influence the domestic wheat market. This is a marked decline from the 91.3 percent share of wheat imports by countries using STEs in the 1973–1977 period. (4)

**Figure 6.1 Major Wheat Exporters and Importers of 1994–1997**



<sup>1</sup> EU-15 includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.

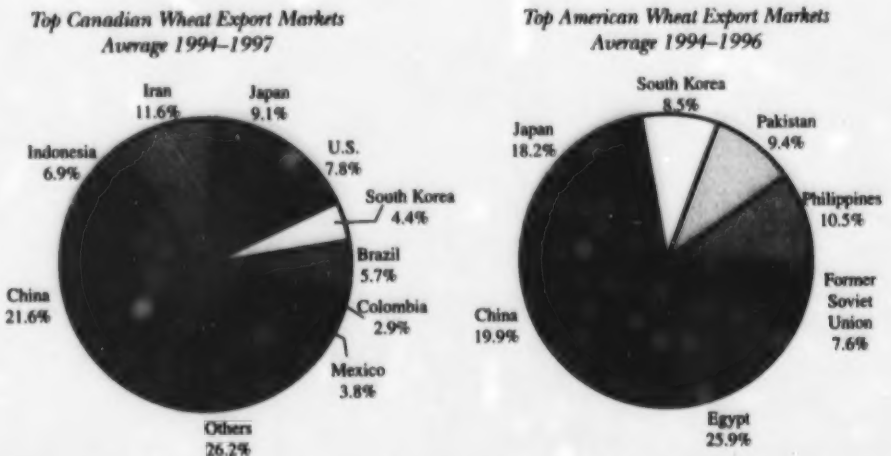
Source: CWB Annual Reports, various years.

When examining the role state trading importers play in the U.S. and Canadian export markets, some interesting results become apparent. The United States exports more wheat to STE importers than the CWB did in the period 1994–96 (Figure 6.2). Of the top seven importers of U.S. wheat, STEs had 81 percent of the market, while they had 60 percent of the Canadian market. The high percentage of STEs in the U.S. wheat market is surprising, given the U.S. negative view of state trading.

A large percentage of the wheat sold in international markets by the United States is sold by MGCs. As a result, state trading by the United States has a different dimension than it has for countries in which single-desk exporters and importers are involved. Schmitz, Furtan and Baylis (1999) state,

It is clear that the CWB is an STE, but the STE status of the United States seems less certain. In its 1979 notification to GATT, under Article XVII, the United States designated the Commodity Credit Corporation (CCC) as a state trader (Dixit and Josling 1997). In carrying out U.S. agricultural policy, the CCC gave the United States its state-trading status—even though multinational businesses handled most U.S. wheat and barley exports (Rossmiller and Sorenson, 1991). CCC operations, which determine the STE status of the United States, include commodity support activities, inventory and disposal operations, and domestic and export programs. Furthermore, with the introduction of the Export Enhancement Program (EEP), the ability of the United States to price discriminate increased. Under EEP, the government awards to exporters bonuses in generic certificates that they can redeem for CCC-owned surplus commodities. The bonuses, or so-called export subsidies, cover the differences between the sale price of wheat in the targeted

**Figure 6.2 Top Importers of American and Canadian Wheat, 1994–1997**



Source: CWB Annual Reports, various years.

Source: Canadian Grain Industry Statistical Handbook, various years.

market and the price paid for wheat in the U.S. market. As Langley (1991) notes, "Although the CCC does not engage in physical export activities, its export assistance programs affect exports, private inventories, and the terms of international transactions including prices and quantities" (122).

## STATE TRADING AND THE WORLD TRADE ORGANIZATION

Members of the WTO are raising many questions about STEs. Their activities will occupy a major place in the upcoming WTO round of trade talks scheduled for November 1999. Some important questions include: What activities fall within the legal definition of state trading? What criteria govern STEs? Do STEs distort trade? Does the WTO distinguish between hard price discrimination (charging different buyers different prices without the use of direct government subsidies) and soft price discrimination (charging different buyers different prices with the use of direct government subsidies)?

The WTO has developed a list of activities that defines the scope of state trading. A state organization involved in any of the activities listed in Table 6.1 may be defined as a state trader. Additionally, a number of WTO member countries are interested in

**Table 6.1 Activities of State Traders: General Agreement on Tariffs and Trade**

<i>List of State Trading Activities</i>	
(a) Purchase of all or a significant percentage of domestic production	(j) Storage, shipping, handling, processing, packaging, insuring and other export-related activities
(b) Intervention purchases and sales (based on predetermined floor and ceiling prices)	(k) Credit guarantees (or other assistance) for producers and national consumption
(c) Involvement in support schemes for domestic production	(l) Marketing activities (promotion activities for exports and national consumption)
(d) Administration of marketing arrangements	(m) Maintenance of emergency stocks (national defense preparedness or implementation of food security programs)
(e) Import operations (possible monopoly on imports)	(n) Granting of licenses (for import, export or production)
(f) Export operations (possible monopoly on exports)	(o) Negotiation of long-term bilateral contracts for exports
(g) Domestic distribution of national production (possible monopoly)	(p) Implementation of quantitative restrictions (on imports/exports)
(h) Domestic distribution of imports (possible monopoly)	(q) Implementation of bilateral aid agreements
(i) Quality control of domestic production (for export)	

*Source: Notified Operations of State Trading Enterprises (taken from WTO, 1995).*

placing disciplines on state trading activities through the WTO Working Party on State Trading. However, in the case of the CWB, one might ask the question, "For what is the STE being disciplined?"

There are three criteria STEs must meet in order to avoid violating WTO rules. (1) An STE must be nondiscriminatory with respect to trade, that is, different prices may be charged for market reasons but not for political reasons. If state traders have a large degree of market influence, they may be able to buy, or sell, the same product from, or to, different markets at different prices. Although this type of activity may reflect a trade distortion (different prices and quantities than would prevail under perfect competition), it does not necessarily contravene international trade regulations. Price discrimination, provided it is only for commercial purposes, is not a WTO violation. (2) The WTO requires that the use of quantitative restrictions be limited. (3) Information about the STE and its operations is to be reported regularly to the WTO through the notification process.

We discuss each of these criteria in turn to show that the CWB is not in violation of WTO rules. Criterion (1) states indirectly that the CWB is permitted to practice price discrimination, that is, charge one price in one market that is different from the price charged in another market, as long as the CWB does so without government subsidies. In other words, the CWB is not in violation of WTO rules if it practices hard-price discrimination. On the other hand, soft-price discrimination, whereby government subsidies are used beyond certain levels, is in violation of WTO rules regarding export subsidies.

The CWB practices hard-price discrimination. Yet, such practice is no basis for WTO discipline. Kraft et al. (1996), Schmitz et al. (1997b) and Brooks and Schmitz (1999) clearly demonstrate that the CWB price discriminates in both the wheat and the barley markets, but without government subsidies. (A possible exception would be occasional pool deficits.) Table 6.2 offers conclusive evidence of the CWB's ability to charge different prices in different markets. To test for CWB market power in feed

**Table 6.2 Mean Difference Test of CWB Prices for Feed Barley 1980/81–1994/95**

<i>Time Period</i>	<i>Japan-U.S.</i>	<i>U.S.-ROW<sup>1</sup></i> <i>CDN\$/tonne</i>	<i>Japan-ROW</i>
1980/81–1994/95	25.29 <sup>2</sup>	4.46 <sup>2</sup>	20.73 <sup>2</sup>
1980/81–1984/85	1.46	4.32	13.99 <sup>2</sup>
1985/86–1994/95	26.84 <sup>2</sup>	4.47 <sup>2</sup>	23.70 <sup>2</sup>

<sup>1</sup> Rest of World (ROW)

<sup>2</sup> Statistically different from zero with a probability greater than 95%.

Source: Condensed from H. Brooks and Troy G. Schmitz, 1999.

barley, Brooks and Schmitz (1999) used actual CWB feed barley daily contract sales data for sales made via Canada's ports (1980/81–1994/95) on the West Coast. Sales were aggregated on an f.o.b. vessel basis into Japan, the United States, and the rest of the world. A mean difference test was then conducted to examine whether statistically significant differences existed among the prices in these markets.

Brooks and Schmitz (1999) found statistically significant differences among the f.o.b. contract prices obtained by the CWB in these markets. Thus, the CWB has been able to price discriminate, allowing it to capture a higher price than would otherwise exist if there were multiple sellers of western Canadian barley. The average difference between CWB contract prices for Japan and the United States, during the 1980/81 through 1994/95 period, was significant, averaging CDN \$25.29 per tonne. The difference between CWB contract prices for the U.S. and markets for the rest of the world was also significant, with an average price difference of CDN \$4.46 per tonne. The difference between CWB contract prices to Japan and to the rest of the world was significant and averaged CDN \$20.73 per tonne.

The introduction of EEP and the resulting feed barley trade war between the United States and the European Union increased the degree to which the CWB price discriminated. The average difference between the CWB barley selling price to Japan and the United States rose from CDN \$1.46 per tonne in the early 1980s to CDN \$26.84 per tonne in the trade-war period. Similarly, the average difference between Japan and the rest of the world increased from CDN \$13.91 per tonne in the early 1980s to CDN \$23.74 per tonne.

There are others who believe the CWB can price discriminate. Richard Rominger, Deputy Secretary of the U.S. Department of Agriculture states (Schmitz et al., 1997b):

Both the Canadian and Australian Wheat Boards practise price discrimination—different prices to different importers. There are similar concerns about the ability of the New Zealand Dairy Board to engage in price discrimination and potential cross-subsidization between foreign markets (using higher prices in one import market to subsidize sales in another market at prices below acquisition costs), as well as the special advantages it accrues through its subsidiaries in more than 60 countries, including the United States.

Many STEs, including the Canadian Wheat Board and the New Zealand Dairy Board, have other important advantages as well. An STE that controls domestic supplies or one that controls exports representing a major share of domestic production has a sure supply, as long as the weather cooperates. This gives the STE much greater freedom than a private firm in making export sales commitments, resulting in a significant advantage in reaching long-term trade agreements with importing governments. The Canadian Wheat Board also benefits from government support ranging from direct subsidies to indirect subsidies, such as subsidized interest rates on government loans. The lack of pricing transparency has been a particularly contentious issue in the case of the Canadian Wheat Board, but it is an important issue with most STEs. (41)

Two points are worth noting: (1) even though the practices of STEs, such as the CWB, may create distortions compared to perfectly competitive trade, the WTO does



not necessarily object to these activities. The WTO's views on hard-price discrimination, as practiced by STEs, seem counter to its views on import duties which are often highly trade distorting, that is, prices and quantities are significantly different from those that would exist in a free market; (2) the WTO generally takes a dim view of export dumping, that is, charging lower prices abroad than in the home market. One of the sources of confusion over WTO rules is the WTO's interpretation and enforcement of anti-dumping rules. Generally, anti-dumping rules are applied by a country against one of its major trading partners, for example, the wheat dumping case leveled by the United States against Canada (Alston and Gray, 1994a, 1994b). To apply anti-dumping rules to the world grain trade is another matter. Historically, the United States and the European Union, through restitution payments and EEP, have violated anti-dumping rules. Both were selling wheat abroad below the cost of production and charging prices below domestic levels. In addition, because of their use of subsidies, the United States and the European Union were practicing soft-price discrimination (Schmitz and Gray, 1992). The use of soft-price discrimination can be in violation of WTO rules if certain subsidy levels are exceeded.

Criterion (2) on quantitative restrictions is difficult to interpret. Limiting sales of wheat to premium markets and increasing sales to elastic, non-premium markets is consistent with the practice of price discrimination. Thus, if the CWB were replaced by MGCs, Canadian wheat exports to the United States would be expected to increase (Carter and Loynes, 1996). By 1998, Canada had no quantitative import restrictions for wheat, durum or barley.

The CWB meets Criterion (3) since it reports its trading activities to the WTO at regular intervals.

### **THE CWB AND GOVERNMENT POLICY**

Critics of the CWB system, many of whom reside in the United States, contend that CWB activities create trade distortions through unfair trade practices, putting U.S. wheat producers at a disadvantage (see Chapter 7). Critics view CWB practices in the same light as E.U. export subsidies, in that both provide an unfair advantage by increasing market share. The European Union uses subsidies to sell in foreign markets at prices well below those received by E.U. producers. Also, high wheat price supports for producers in major importing countries, such as China and Japan, cut into U.S. export markets too.

Critics often forget that STEs such as the CWB, COFCO, and JFA may have little or nothing to do with setting the parameters of government price and income policy, for example, producer price supports, export subsidies, deficiency payments, and water subsidies. In fact, a country's government policies are the source of trade distortions; major trade distortions are not caused by single-desk sellers or single-desk buyers. Critical attention is misplaced on STEs when the focus should be on government policy.

We emphasize that the CWB, with a few exceptions, does not set agricultural policy and does not administer agricultural programs. The CWB's major activity is to market wheat and barley grown by western Canadian farmers. The CWB does influence transportation policy and the movement of prairie grain to port, but the impact is minor relative to many Canadian agricultural policies of the past.

Many Canadian farm programs have been in place since the 1950s though they were terminated prior to 1998 (see Chapter 5). The majority of these programs were implemented when the grain economy collapsed in the mid-1980s. As Schmitz and Furtan (1998) note, "these were not legislated by the CWB but instead were instituted by federal and provincial governments" (260). The major programs included the Crow Benefit, Crop Insurance, the Gross Revenue Insurance Program, and the Special Canadian Grains Program. Between 1985 and 1991, these programs paid out over CDN \$2 billion annually to prairie grain farmers.

The trade-distorting effects of the CWB pale in comparison to the trade-distorting effects of the above government programs. Most of the agricultural programs that affect prairie grain farmers have been eliminated. One such program, the Crow Benefit, was eliminated in 1995; it was clearly trade-distorting. Still, critics argue that: (1) the CWB, through initial price guarantees, subsidizes the farmer; (2) the setting of initial prices distorts production; and (3) the CWB has been used by the Canadian government to implement the U.K. wheat agreement, providing credit sales to foreign markets, such as Russia and Poland, and blocking sales to the United States.

Concerning the first criticism that the CWB subsidizes farmers through guaranteed initial payments, a deficit in the wheat pool account occurred only twice from 1980/81 through 1996/97 (Figure 4.1 in Chapter 4). For durum wheat, the deficit occurred only once for the 1990/91 crop year. Thus, because of their infrequency, it would be difficult to argue that past deficits in the CWB pool account have created major trade distortions. The second point, that the CWB causes distortions through the setting of initial prices has no validity, since initial prices are set after planting, not prior to seeding. Finally, concerning point three, the CWB did not set the government policy regarding the U.K. wheat agreement; rather, the U.K. wheat agreement was determined by the Government of Canada.

The CWB's influence on Canada's grain, price, and income programs is negligible. Excluding the CWB-administered Cash Advance Program, the CWB operates outside the sphere of the Canadian government. The majority of Canadian agricultural programs that affect prairie farmers are not executed by the CWB. This is not to say that the CWB has no part in the regulatory structure in Canada that deals with grain matters. (Its interface with other regulatory agencies is the subject of Chapter 3). Some critics have commented that because of its networking and presence in many of the facets of the commercial grain trade, the CWB has a controlling interest in the commercial operation of the wheat and barley trade, both domestically and abroad. Such interest is taken to suggest a stronger influence on government policy setting than is the case, even though the CWB may have influence in the industry.

The weak link between the CWB and Canadian agricultural policy in Canada exists in other countries as well. COFCO and the JFA, for example, are two major STEs involved in buying wheat from major exporters. Both single-desk importers are essentially state-owned and run economic enterprises, though they have not come under the same scrutiny as the CWB. It is the Chinese and Japanese governments that set and implement agricultural policies, which have been highly trade-distorting. Regardless, given government pricing policies, COFCO and JFA import a fixed amount of product, set by government quota, at the lowest possible price. The operations of COFCO may increase

internal price instability (Carter et al., 1998a), because, at times, the price at which they import is below their internal farm price. Importing below the local farm price generates a significant import revenue for COFCO and JFA that is used, in turn, to support domestic prices. Nonetheless, these price support dimensions of agricultural policy are not set and are not influenced significantly by these STEs; rather, they are in the hands of government. In conclusion, governmental agricultural policy impacts trade much more than do the activities of STEs.

STEs are also permitted under NAFTA. The rules governing STEs under NAFTA are the same as those under the WTO. One difference between the WTO and NAFTA in terms of STEs is the rule regarding the creation of an STE. Under NAFTA it appears to be very difficult, if not impossible, to create new STEs that have legislated authority to restrict trade for either imports or exports. This rule, however, has not been tested in court as of 1999.

## THE DEBATE OVER CWB PERFORMANCE

To examine the impact of the CWB on world trade in the context of the WTO, two very different views of the performance of the CWB have to be considered. Carter (1992) found that Canada earned significant price premiums—especially from grain sales to the former USSR and Japan—even before U.S. and E.U. export subsidies were introduced. Using Carter's results, one could argue that the CWB pricing strategy was trade-distorting but was allowable under the WTO because of the nature of the price discrimination. Continuing Carter's line of inquiry, Kraft et al. (1996) found that the CWB earned significant price premiums on wheat above those that would have existed under a multiple-seller environment. The price premiums ranged from CDN \$15/mmt to CDN \$20/mmt and were positively correlated with the magnitude of the U.S. export subsidies. Kraft et al. (1996) argued that these rents were largely due to the ability of the CWB to price discriminate in the world market and that the use of EEP by the United States enhanced the CWB's ability to price discriminate. In essence, EEP allowed the United States to price discriminate through export rebates to the MGCs. In order to maximize export sales revenue, the CWB price discriminated as well. The key difference between Canada and the United States is that Canada, through the CWB, did not use taxpayers' dollars. (That is, the CWB practiced hard-price discrimination.) What are the implications of the Kraft et al. (1996) results? It appears that the major trade irritant was not the CWB (and the rents it earned over multiple sellers); rather, it was competitors' export subsidies which were the cause of the trade distortions.

The effectiveness of the CWB and other similar institutions in enhancing producer returns is, unfortunately, far from clear. Unlike the view of Kraft et al. (1996) and Schmitz et al. (1997a and 1997b), many argue that the CWB is inefficient and, in essence, taxes producers because of these inefficiencies. According to Winston Wilson, a former President of the U.S. Wheat Associates, the CWB monopoly has long outlived its usefulness. Wilson contended that, while the CWB was perhaps a practical idea during the World War II era, it no longer serves Canadian wheat producers in terms of efficiency or net returns. Canadian producers' marketing options are nonexistent, Wilson claimed, except occasionally when the CWB permits sales into the United States

(after paying a fee to the Board). As a consequence, Canadian farmers are recipients of the residual that remains after relatively high pool expenses. CWB pricing practices, according to Wilson, are usually geared to maximizing tonnage shipped rather than net returns to producers. Ultimately, Wilson argued that a free-market option would benefit the Canadian farmer as well as the world grain trade by at least partially eliminating one source of artificially low administered prices.

Carter and Loynes (1996), in their paper on single-desk selling, contend that farmers were worse off as a result of the higher marketing costs of the CWB than they would have been under multiple sellers. They argue that the CWB costs farmers an additional CDN \$31.65 per tonne for wheat and CDN \$37.50 per tonne for barley. If their arguments are correct, the CWB would be imposing an implicit export tax on Canadian wheat and barley growers. This tax would be trade-distorting because producer price, and hence output, would be less than in a multiple-seller environment. This reduced output, however, would be to the advantage of Canada's major competitors. Such a tax would cause world prices to increase and would reduce Canada's export market share. In this case, the CWB should have support from U.S. producers, but it does not (Schmitz et al., 1997a and 1997b).

### THE CWB AND THE WTO

To add to the complexity of the debate and to explore the implications for the WTO, we consider the two contrasting cases above. Suppose that the CWB can obtain an additional return for producers through price discrimination. This is clearly allowed under the WTO, even though price discrimination by the CWB may be trade-distorting. We compare this scenario to the Carter and Loynes (1996) case in which the CWB taxes producers as a result of market inefficiencies. This is essentially what the U.S. Foreign Agriculture Service argues when they compare Canadian c.i.f. (cost, insurance and freight) prices with those of the United States, claiming that the CWB undercuts the competitors in some markets. Is this tax trade-distorting? To our knowledge, the WTO has not dealt with taxes imposed by export STEs. Even so, we show below that neither price premiums nor taxes give rise to major trade distortions.

To draw out the implications for the WTO, Table 6.3 presents results from the premiums calculated by Kraft et al. (1996) and Schmitz et al. (1997a), compared with the costs calculated by Carter and Loynes (1996). Using the Kraft et al. (1996) results, Canadian wheat production would have increased by 1.45 mmt because of the premiums earned through price discrimination, increasing Canadian exports by 1.1 percent of world trade. In contrast, the higher costs reported by Carter and Loynes would have decreased production by 3.29 mmt, dropping Canadian exports by 2.5 percent of world trade. For feed and malting barley, in the Schmitz et al. (1997a) results, Canadian barley production would increase 0.12 mmt and 0.1 mmt, respectively. The resulting increase in exports represents 2.7 percent of the world malting and feed barley trade. To compare the trade impact, note that if the export demand elasticity for feed barley is  $-20$  (Schmitz et al., 1997a), then the increased Canadian exports of 0.2 percent will have a negligible price effect.

The results presented in Table 6.3 come from a partial equilibrium framework. If the trade impact of all single-desk buyers and single-desk sellers was considered, then

**Table 6.3 Impacts of the CWB on Canadian Production, World Price, and Trade**

Scenario	Crop	Supply change in Canada	Change in world price	Change in Canadian exports as % of world trade	Change in Canadian production as % of world production
		mmt	CDN\$ per tonne	percent	percent
CWB premiums	Wheat	1.45	(0.04)	1.1	0.3
	Malting Barley	0.10	(0.29)	2.5	0.06
	Feed Barley	0.12	(0.23)	0.2	0.07
CWB costs	Wheat	(3.29)	0.38	(2.5)	(0.6)
	Malting Barley	(0.11)	0.31	(2.7)	(0.07)
	Feed Barley	(1.24)	0.52	(2.7)	(0.7)

*The supply elasticities for wheat and barley in western Canada are 0.46 and 0.304 respectively (Yildirim, 1990).*

*The demand elasticities for Canadian wheat and barley in the rest of the world are -10 and -20 respectively (Spriggs, 1985; and Schmitz et al., 1997b).*

*Source: Schmitz et al., 1999, p. 32.*

the price distorting effects of single-desk sellers might be offset by the price distortions caused by single-desk buyers. Thus, the net results of CWB actions may be smaller than what is suggested in Table 6.3.

The effect of soft-price discrimination through export subsidies on world price is much larger than that achieved through hard-price discrimination, even though the effects are all in the same direction. Perhaps this is why the WTO chose to focus on soft-rather than hard-price discrimination. For example, Haley et al. (1992) found that EEP increased U.S. domestic feed barley price by U.S. \$6 to U.S. \$11 per tonne in 1986/87 and, at the same time, lowered Australian, Canadian, and E.U. export barley prices by 5, 3, and 2 percent, respectively. A similar result was found for the following year. EEP increased U.S. prices and lowered the world price faced by competitors. Given the large quantities affected by these price changes, both within the U.S. and internationally, EEP has had a larger production impact than either the premiums or costs that are associated with the CWB.

Do the actions of the CWB violate the WTO? No, they do not. The CWB does price discriminate and, therefore, does distort trade. If the full shift in Canadian production is reflected in the world market, as shown in Table 6.3, then the trade-distorting effects for barley and wheat are less than 3 percent over the competitive equilibrium. If both premiums and taxes are in effect, then the trade-distorting effects are roughly 1 percent of world trade. However, neither of these effects, regardless of their magnitude, are actionable under WTO because hard-price discrimination is permitted. Whether or not Kraft et al. (1996); Schmitz et al. (1997a); or Carter and Loynes (1996) are correct, these effects of the CWB do not counter the WTO agreement.

## SUMMARY

Many countries use STEs in agriculture and in the grain trade in particular. What is important to the WTO is how STEs influence international trade. Fulton et al. (1999) conclude that "it is evident that the behavior of an STE can only be inferred through an in-depth analysis" (98). For the case of the CWB in Canada and the CCC in the United States, Schmitz et al. (1999) note:

While the United States has always been critical of STEs, now that it is no longer a significant state trader in grains it seems even less friendly toward them. However, the WTO rules appear to support those STEs that practice hard-price discrimination.... The trade-distorting effects of the CWB are small indeed. This is the case whether the CWB earns a price premium for producers or taxes producers. In the first case, the CWB practices hard-price discrimination, which is legal under current WTO rules. In the second case, when the CWB is inefficient and lowers producer returns, its activities are still acceptable under WTO. The tax scenario makes the CWB highly favorable to its competitors. Importantly, even if the distorting effects were much larger than those reported, CWB activities would still be allowable because the WTO places no limit on the magnitude of price discrimination by STEs. This strong conclusion should cast doubt on the ability of the WTO to discipline STEs. A problem arises because the WTO does not adequately qualify its limit on quantitative restrictions. For example, since the CWB does not set Canadian grain-trade policy, to price discriminate (which the WTO permits) the CWB must use quantitative restrictions (which WTO limits). Thus, there appears to be a contradiction between the first and second requirement of the WTO. Upcoming WTO discussions must focus on more careful definitions of the criteria that limit STEs and their activities. (32-33)



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## CHAPTER 7

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# CANADA-U.S. WHEAT TRADE DISPUTES AND THE CWB



Photo by Stu Phillips; used by permission.

*In December 1998, U.S. farmers demonstrated against CWB shipments into the U.S. markets.*



*In grain trade disputes between the U.S. and Canada, most roads lead to Winnipeg and then invariably to 423 Main St. There, in a single office tower, the Canadian Wheat Board (CWB) runs one of the largest grain enterprises in the world, a farmer-oriented, multi-billion dollar, non-profit powerhouse. As the dominant force in Canada's grain sector, CWB has become a national lightning rod when distrust begins to boil or grain prices begin to sink across the border.*

— Charles House, *Feedstuffs*, 1998

## CHRONOLOGY OF THE CANADA-U.S. WHEAT DISPUTES

For many years, few disputes existed between Canada and the United States over grain shipments into the U.S. market, largely because little grain flowed into the United States from Canada. All this has changed dramatically. Numerous confrontations over Canada-U.S. trade occurred, especially in the 1990s (Table 7.1). Many were specific to CWB shipments of wheat to the United States. In all the trade dispute investigations which are discussed below, the CWB was found to operate in compliance with all relevant trade rules.

Canadian grain shipments to the United States have been somewhat erratic (Figure 7.1). Large increases occurred during the Second World War and again during EEP, which raised internal U.S. grain prices while lowering the world price, making the U.S. market more attractive for the CWB (Carter and Schmitz, 1992). Durum exports to the United States were at their peak during the highest EEP subsidy. EEP provided incentives to the CWB to expand exports to the United States because higher returns were available relative to other markets (Alston et al., 1997). U.S. imports of durum have been driven partly by declining domestic production of No. 1 and No. 2 grade durum, the grades required by the U.S. pasta industry. From a high of 78 percent in 1990, the proportion of U.S. No. 1 or No. 2 grade durum production declined to a low of 36 percent in 1997, and averaged 56 percent during the 1990–97 period (Figure 7.2). As a result, the United States has been in a deficit position for milling quality durum in each crop year since 1990/91. This, along with consistent access to Canadian durum, has resulted in regular imports from Canada (Figure 7.2).

Weather factors also influenced trade between the two countries. The most dramatic increase in wheat exports since World War II came during the 1993/94 crop year when floods devastated wheat crops in the United States, creating large shortages of feed wheat intended for animals. Because of limited U.S. supplies, American millers blended some of the Canadian feed wheat with higher quality wheat to produce wheat flour, some of which was exported under U.S. export subsidies, angering many American farmers. High-quality Canadian wheat exports—particularly durum wheat used for making pasta—also continued to expand, but lower quality feed wheat exports grew most rapidly.

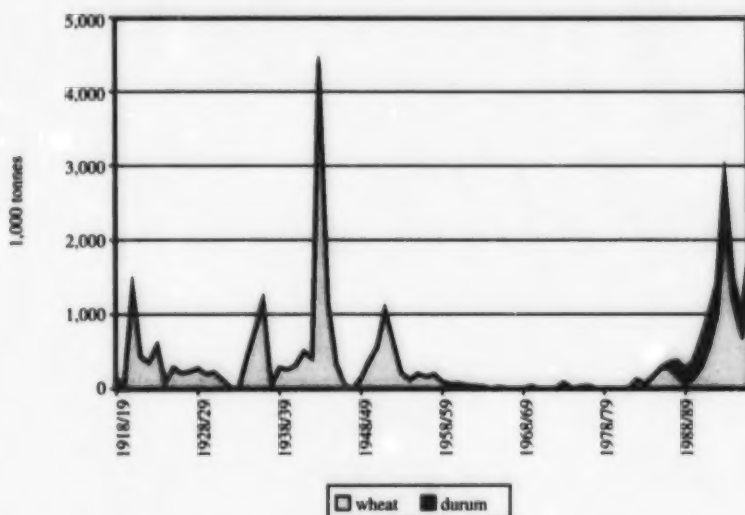
Even prior to 1993/94, U.S. wheat growers had unsubstantiated complaints that the CWB was undercutting the price of domestic wheat, blaming Canadian government transportation subsidies (which came under the Western Grain Transportation Act) as

**Table 7.1 U.S.-Canada Grain Border Disputes**

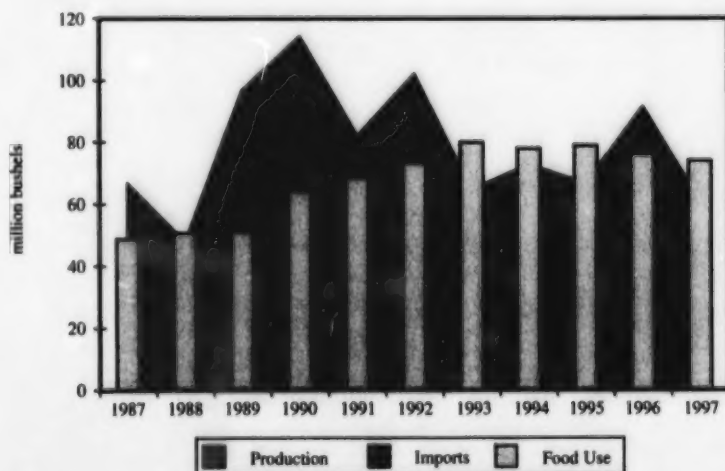
<i>Investigation</i>	<i>Conducted by</i>	<i>Completed</i>	<i>Outcome</i>
Durum: Conditions of competition	U.S. ITC, under section 332 of Tariff Act of 1930	June 1990	<ul style="list-style-type: none"> <li>• CWB deemed clean</li> <li>• No evidence of price cutting by CWB in U.S. market</li> </ul>
Review of CWB/AWB	U.S. GAO (required by Senator Boren of Oklahoma)	June 1992	<ul style="list-style-type: none"> <li>• No evidence of unfair trade practices</li> </ul>
CUSTA	Bi-National Panel	February 1993	<ul style="list-style-type: none"> <li>• Ruled in favor of Canada</li> <li>• Received audit of durum sales</li> <li>• First audit covered 3.5 years</li> </ul>
Wheat/Products: harm to U.S. farm programs?	U.S. ITC, under section 22 of Agricultural Adjustment Act of 1930	July 1994	<ul style="list-style-type: none"> <li>• 1994-95 cap on exports to the U.S. negotiated that precluded more severe trade restrictions</li> </ul>
Canada-U.S. grain market and policy environment	Joint commission on grains	October 1995	<ul style="list-style-type: none"> <li>• Many recommendations were made to improve trade in both directions</li> </ul>
Ability of STEs to distort trade	U.S. GAO	June 1996	<ul style="list-style-type: none"> <li>• USDA officials acknowledged that they did not have evidence that CWB was violating existing trade agreements</li> </ul>
U.S. Agricultural trade; Canadian wheat issues	U.S. GAO	November 1998	<ul style="list-style-type: none"> <li>• No solid conclusions, but focused on areas of U.S. concern</li> </ul>
CVD live cattle from Canada — petitioner alleged CWB is a subsidy to cattle producers	U.S. Department of Commerce	October 1999	<ul style="list-style-type: none"> <li>• Final ruling confirmed that the CWB did not provide a subsidy to cattle producers in the POI (April 1997 to July 1998).</li> </ul>

Source: CWB

one of the culprits. In addition, the MGCs complained about unfairly subsidized CWB exports going to third markets such as Mexico. The U.S. Northern Plains senators and members of Congress lobbied for, and indirectly initiated trade actions against Canada due to rising wheat exports to the United States (particularly durum). The first action was the International Trade Commission (ITC) investigation that led to the release of a report on U.S. imports of Canadian durum wheat entitled, *Durum Wheat: Conditions of Competition Between the U.S. and Canadian Industries*. In that report, the ITC found no significant difference between prices of U.S.- and Canadian-grown durum sold in the United States. In the majority of price comparisons, Canadian durum prices were higher than U.S. durum prices. The third investigation was carried out by the Bi-National Panel (February 8, 1993), which examined whether or not Canadian exports of durum to the United States were consistent with Article 701.3 of CUSTA (that is, whether Canadian exports to the United States were sold at values below the CWB's

**Figure 7.1 Canadian Wheat Exports to United States 1918/19–1996/97.**

Source: 1918–55 Board of Grain Commissioners Report, Trade and Commerce;  
 1955–72 Canadian Grain Commission, Canadian Grain Exports;  
 1972–96 Canadian Grain Commission, Grain Statistics Handbook.

**Figure 7.2 U.S. Production, Imports and Food Use of #1 and #2 Grade Durum Wheat**

Source: North Dakota State University, Kansas State University based on data from USDA.

acquisition value). The Panel ruled in favor of Canada's interpretation of Article 701.3 on all counts (that is, the interpretation of acquisition value). The Panel recommended an information-sharing procedure to deal with issues of compliance and organized an audit committee to achieve this goal. The initial audit was to be retrospective and was to cover the period from January 1, 1989 to July 31, 1992. Thereafter, audits were to be conducted annually on the basis of the CWB crop year. U.S. politicians denounced the Panel's findings and have continued to seek alternative trade actions against imports of Canadian wheat.

By May 1993, midwestern and northern tier members of Congress and senators asked Agriculture Secretary Espy and U.S. Trade Representative Kantor to consider subsidizing American wheat exports to Mexico under the EEP to compete with, and displace, Canadian exports. Within weeks, Espy announced that EEP would be used to help American wheat exports to Mexico. The Canadian official at the Geneva mission, Pierre Gosselin, accused the United States of using EEP to squeeze Canadian producers out of the Mexican market, which was a traditional market for Canadian wheat. According to Gosselin, this was the first time that EEP, originally created to counter EEC agricultural export subsidies, was used directly against Canada in a third market in which the United States and Canada were the only competitors. The Canadian government alleged that U.S. actions violated Article 701 (4) of CUSTA, which required each country to take into account the export interest of the other party in the use of any export subsidy on any agricultural good exported to third countries, such as Mexico, if these subsidies have a prejudicial effect on the export interest of the other country. In return, the U.S. government argued that Article 701(4), while a laudable statement of principle, was effectively unenforceable.

The wheat dispute intensified when, at the request of President Clinton, the ITC launched an investigation into Canadian durum wheat exports on January 18, 1994. President Clinton made his request under Section 22 of the 1933 Agricultural Adjustment Act under which the ITC was asked to investigate whether Canadian durum wheat was being imported under such conditions or in such quantities as to render, or to tend to render ineffective, or materially interfere with, the price support, payment and production adjustment program conducted for wheat by the USDA.

The Section 22 legislation allowed President Clinton to impose emergency tariffs of up to 50 percent, or quotas of no less than 50 percent of imports, over some representative period, at the President's discretion; and to initiate an ITC investigation to determine if the emergency restrictions were warranted. In other words, the ITC would have had to determine whether Canadian exports of wheat to the United States were materially affecting the operation of U.S. farm programs. Alternatively, President Clinton could call for an immediate ITC investigation and base his decision concerning border restrictions on the conclusions of the investigation. In either case, the conclusions of the ITC investigation would not have been binding on the President's decision.

Should the President have imposed emergency Section 22 trade action, Canada would have had two avenues of recourse: (1) Canada could have submitted its arguments to the ITC investigation which would follow the emergency trade action; or, (2) Canada could have taken the United States to a bi-national dispute settlement panel

arguing that the imposition of Section 22 trade action is in violation of Article 705.5 of CUSTA. Article 705.5 states (CUSTA, 1987):

Each Party shall, for the purposes of restricting the importation of a grain or a grain product due to its content of that grain, retain the right, to the extent consistent with other provisions of this Agreement, to introduce or, where they have been eliminated, reintroduce quantitative import restrictions or import fees on imports of such grain or grain products originating in the territory of the other Party if such imports increase significantly as a result of a substantial change in either Party's support programs for that grain. For purposes of this paragraph, grain means wheat, oats, barley, rye, corn, triticale, and sorghum. (84)

Under this Article, the United States would have had to demonstrate a substantial change in either Canadian or U.S. programs to justify the imposition of a Section 22 trade action. It is also possible that the ITC could have addressed U.S. obligations under Article 705.5 of CUSTA in their investigation. In any case, Canada would have the right to take the United States to a dispute settlement panel under CUSTA regulations.

The ITC investigation was initiated on January 18, 1994. At the same time, Canada and the United States continued to have bilateral meetings, hoping to arrive at a settlement on several outstanding Canada-U.S. trade issues, one of which was the grain trade. In these negotiations, Canada offered to eliminate the transportation subsidies on American and Mexican shipments in return for the United States eliminating EEP in Mexico. Canada also offered to extend the audit of durum wheat as outlined by the dispute panel ruling on Article 701.3 of CUSTA (acquisition value) to include non-durum wheat and barley. The major point of disagreement in these negotiations was the U.S. demand for Canadian agreement to restrict exports of wheat to the United States.

In January of 1994, the Honourable Ralph Goodale, then Minister of Agriculture and Agri-Food Canada, claimed he was not spooked by Washington's actions because the U.S. demand to limit imports could be discontinued at any time. Clearly, the wheat investigation had lifted the profile of the wheat dispute and pushed the Canadian government to resolve that specific disagreement in order to take the pressure off other agricultural trade concerns, including the supply management sector. In particular, the United States wanted Canada to submit to a voluntary export restraint agreement limiting wheat exports to the United States.

Although negotiations continued among officials, they made little progress. U.S. Senator Richard Lugar and Congressman Pat Roberts were pushing for increased price disclosure from the CWB. Since the CWB is a state monopoly trading agency, Lugar and Roberts, along with other House and Senate members felt the CWB should be under a higher standard of disclosure than the MGCs. The Canadians, on the other hand, took heart in the results of an independent audit completed in early March of 1994 by a company agreed to by both countries. Of the 105 CWB export contracts examined, covering a period from January 1989 to July 1992, there were only three cases of such subsidies, each in early 1989. Moreover, the United States was about to sign the new WTO agreement giving up its rights under Section 22 of the Agricultural Adjustment Act.

By the end of April 1994 the dispute had entered its most acrimonious phase, as both sides carried their campaign to third countries. The Minister of Agriculture and Agri-Food Canada traveled to China and Korea where EEP-subsidized wheat sales had recently reduced Canada's market share. Meanwhile, claiming that both the United States and Argentina had lost market share in Brazil to subsidized Canadian wheat, Espy convinced the Argentineans to demand that the Canadians explain their pricing policies.

At the end of July 1994, the Government of Canada agreed to limit wheat exports to the United States, and the latter agreed to stop its efforts to restrict Canadian wheat shipments to the United States. Canada's International Trade Minister, Roy MacLaren, reluctantly had concluded that the U.S. government fully intended to carry out its threat of unilaterally imposing a quota on Canadian wheat imports. It was better, therefore, to negotiate a higher cap than to allow the imposition of a lower cap. After months of arguing that his government would never agree to such a settlement, MacLaren felt he could keep the United States from unilaterally imposing quotas or countervailing duties on Canadian grain.

Under the wheat price agreement, Canada was allowed to export 300,000 tonnes of durum and 1,050,000 tonnes of what was termed other wheat from the CWB region to the United States during the Canadian 1994/95 crop year at the existing NAFTA tariff rate of U.S. \$2.31 per tonne. A memorandum of understanding, however, was instituted to establish a tariff-rate quota on western Canadian wheat and durum exports to the United States over and above these levels of trade between the two countries. The tariff-rate quota provided for 300,000 tonnes of durum wheat and 1,050,000 tonnes of other CWB wheat to enter the United States at the NAFTA rate of U.S. \$2.31 per tonne. The tariff-rate quota for durum increased to U.S. \$23 per tonne for the first 150,000 tonnes in excess of 300,000 tonnes and U.S. \$50 per tonne for all quantities beyond 450,000 tonnes. The tariff rate for other wheat increased to US \$50 per tonne for all quantities in excess of 1,050,000 tonnes.

The tariff-rate quota on Canadian wheat exports to the United States expired at midnight on September 11, 1995, without the United States taking additional action. Under the WTO, the United States has lost its previous WTO waiver to take unilateral action against member states via measures set out in Section 22 of the U.S. Trade Law. Subsequently, the United States is no longer in an internationally legal position to impose border measures on non-injurious Canadian wheat exports.

## **THE CANADA-U.S. WHEAT AGREEMENT OF AUGUST 1, 1994**

On August 1, 1994, Canada and the United States reached a three-part agreement that both sides felt was politically acceptable (Agriculture and Agri-Food Canada, 1994):

- Canada was subjected to two separate caps: if durum wheat exports were between 300,000 and 450,000 tonnes, Canada would face a tariff of U.S. \$23 per tonne. Any amount above 450,000 tonnes would encounter a prohibitive tariff. CWB wheat (from the western provinces only) would be limited to 1,050,000 million tonnes.



- A Blue Ribbon Committee made up of six to ten private sector members of the two countries would be established in order to determine the impact of grain-marketing institutions and programs (in each country) on bilateral and third-country trade, with a final report to be delivered by July 1, 1995.
- A one-year peace clause would prevent the United States from launching any further trade actions and would prevent Canada from challenging any U.S. actions under either NAFTA or WTO, until July 1, 1995.

Both governments claimed satisfaction with the agreement. The U.S. government felt that the cap was low enough to protect American producers from a flood of Canadian wheat imports for the current crop year. In addition, the Blue Ribbon Committee ensured that the practices of the CWB would come under intense scrutiny. The findings of the Committee would give the U.S. government political ammunition to pressure the Canadians to change their marketing practices. The Canadian government came to the opposite conclusion. It felt the cap was high enough to not overly impede Canadian wheat exports to the United States, and that its own members on the Committee would be able to protect the integrity of the CWB while exposing the subsidies and unfair practices employed in the American grain-handling system.

Initially, the majority of farm groups in both countries were unhappy with the agreement negotiated by their governments. American grain growers felt that the cap was too high and that the agreement should extend to barley imports as well. Many Canadian wheat growers felt that their government had set a dangerous precedent by agreeing to the cap, and some felt that the cap was definitely below Canada's potential wheat exports to the United States. In other words, Canadian exports would be artificially capped at a low level through the voluntary export restraint, and Canadians might be forced to negotiate future export caps after the one-year agreement.

Since the disputes of 1993 and 1994, major changes have occurred in farm policy. In 1996, for example, the United States introduced the Freedom to Farm Act. Canada removed its freight subsidy on the export of grains from western Canada as a result of past WTO negotiations and budgetary concerns. This lowered the farm-gate price of grain on the Canadian Prairies and encouraged farmers to look for markets closer to home. One such market is the domestic U.S. market, accessible at a much lower cost than are the overseas export markets. The U.S. insistence on the removal of this subsidy has increased the incentive for Canadian grain to move south. Carter (1995) contends that if the CWB export monopoly was removed, farmers and other exporters would likely move more grain into the U.S. market. It is believed that the CWB restricts exports to the United States in order to defer potential trade disputes. However, if northern U.S. grain farmers get their way and have the CWB monopoly removed, they may get an unpleasant surprise.

In addition, Carter (1995) notes, the case that the United States brought against Canada under Section 22 had some interesting character witnesses. Economists, policy entrepreneurs, and professors on both sides argued the case. The USDA testified that Canadian imports of wheat significantly lowered U.S. domestic prices by about U.S. \$.09 per bushel (Collins, 1994). They held that an import quota on Canadian imports (set at 22.4 percent of the 1993/94 imports) would have saved the U.S. government about U.S. \$230 million. Carter (1995) notes that the Alston et al. (1994a) study found

a much smaller impact on the cost of the U.S. wheat program. That study estimated program costs would only fall by about U.S. \$16 million if Canadian imports were limited to 22.4 percent of the 1993/94 level. "There is a tremendous gap between the two sets of estimates," says Carter; he continues,

The USITC commissioners were not impressed with the intellectual depth of the USDA testimony and suggested the USDA analysis was "essentially political statements, devoid of any analysis" and this opinion was widely circulated in the press. Ironically, after the USITC hearings, another USDA economist (Haley, 1995) contradicted the USDA analysis that was prepared for the USITC hearings. Haley concludes that an import quota on Canadian wheat imports would increase the cost of the U.S. wheat program, rather than lower it, as argued by Collins. The Haley result is confusing however, as he essentially argues that an import quota will lower domestic prices, which is at odds with economic theory. (142-43)

## **PERCEPTIONS**

### **CANADIAN PERCEPTIONS**

The following illustrates that not only is there significant disagreement in Canada on the economic status of the CWB, but there is also disagreement in Canada on the effects produced by U.S. agricultural policy. EEP has been used as a specific policy tool. For example, U.S. wheat exports into Mexico were subsidized at the request of U.S. members of Congress from the "wheat belt." Other instances demonstrate that EEP was used to target countries in which the major traders were not subsidizing their exports.

The CWB raised the concern about EEP being used to target Canadian sales (Furtan and Baylis, 1997):

Examples of markets where the U.S. has failed to consider Canada's interests [in the use of EEP], despite the fact the EU is not a major player, include the Philippines, Brazil, Colombia, Mexico and Venezuela.... Allocations of EEP to both Finland (135,000 tonnes) and Norway (160,000 tonnes) on June 24, 1993, also appeared to be directed at non-EU competitors.... Canada is a major player in both of these markets and the EEP allocations displaced imports of high-quality Canadian wheat. (19)

A number of Canadian farm groups, as well as the CWB, argued that EEP was a large factor in the grain dispute. The National Farmers Union, as quoted in Furtan and Baylis (1997), stated:

We recall with considerable clarity the outcry from the US producers over imports of Canadian durum during the 1993-94 crop year. Although world durum stocks were extremely tight, the US continued to subsidize durum exports. The USDA projected durum production to be 2.1 million tonnes, while domestic consumption was forecasted to be 2.42 million tonnes. Despite this tight domestic situation, the USDA's export program was targeted to move 816,000 tonnes of durum to offshore markets, mostly with EEP subsidies. (19)

The prairie grain pools also argued that the existence of EEP makes the United States an attractive market for Canadian grain (especially for wheat and durum). By removing grain from the domestic market, EEP maintains U.S. domestic prices at a higher level and reduces prices in targeted offshore markets, thereby reducing the return to Canadian farmers on sales to these markets (Furtan and Baylis, 1997).

Others disagree that EEP acted as a driving force in increasing Canada's grain exports to the United States. For example, the Alberta Barley Commission notes that EEP has had little effect on the gap between American and Canadian prices and has had little effect on the incentive to sell Canadian barley into the U.S. market. However, EEP has distorted CWB prices relative to those in the domestic market (Furtan and Baylis, 1997: 20).

Some Canadian groups have compared EEP to Canada's rail freight subsidy for grain under the Western Grain Transportation Act. At one time the WCWGA considered that, since Canada planned to convert the subsidy to a direct income support program, it was imperative that the U.S. government take similar measures to convert EEP. Dominion Malting noted that the Crow Benefit (rail freight subsidy) versus EEP incentives should be considered in terms of how the two countries compete against each other in export markets (Furtan and Baylis, 1997).

### **U.S. PERCEPTIONS**

Generally, the United States is critical of the CWB. The United States believes that the CWB may be subsidizing wheat exports into the United States. The USDA publicized that Canadian wheat exports in 1996/97 to the United States were 32 percent above the 1994 cap levels (for example, red spring wheat exports to the United States were 35 percent over, and durum exports were 21 percent over). In 1997, American pressure was mounting from various interest groups to drive Canadian wheat exports down to the 1994 levels.

Producers and producer groups have voiced concern that the CWB is exporting wheat and barley into the United States and undercutting their price. Ronald Selzler writes, "Through their wheat board pricing practice, they [Canada] have the ability to dump in our market" (Furtan and Baylis, 1997). This is a sentiment repeated by the USDA: "US producers, for instance, have complained that the CWB subsidizes grain through its pricing policies to their competitive disadvantage" (Furtan and Baylis, 1997). North Dakota Senator Kent Conrad states, "Many analysts believe that the CWB's pricing practices differ from that of a perfectly competitive firm and that its prices in the US tend to undercut US prices" (Furtan and Baylis, 1997).

The CWB's price non-transparency and price pooling are often cited as means by which the CWB can subsidize exports. The American Farm Bureau Federation takes issue on this point. It notes that the CWB can net CDN \$20 to CDN \$25 per tonne more by selling wheat in the United States than by selling into the depressed world market. The lack of price transparency allows the CWB to maintain standing price orders that are below U.S. offers. The Farm Bureau wants more open-trading systems around the world, and it does not consider the CWB to be an open system. It feels that movement toward more open markets would create greater economic efficiency (Furtan and Baylis, 1997). The General Accounting Office also notes (GAO, 1996):

U.S. critics of CWB contend that CWB has an unfair pricing advantage due to its status as the single-desk selling authority. According to one USDA official, the day-to-day replacement cost for wheat is more readily apparent in the US with its commodity markets than is true of CWB.... Some US officials are also concerned about CWB undercutting US producers using its grain quality standards. According to USDA officials, CWB has used high quality as a marketing strategy, often providing higher protein content in its wheat than the customer requests and thus developing an expectation that CWB's wheat is a better value for the money.... Grain traders in the US are "price takers," or are required to buy their grain at the given market price without being able to affect that price. The CWB's exclusive purchasing authority over wheat and barley for human consumption provides CWB with a more secure source of supply, as well as more control, than would be the case for a private exporter. (45)

Two issues are predominant in the debate over Canada-U.S. grain shipments. Richard Rominger, Deputy Secretary of Agriculture, holds that lack of price transparency is a contentious issue, and he notes that the CWB benefits from price discrimination and from government support ranging from direct subsidies to indirect subsidies, such as subsidized interest rates on government loans (Schmitz et al., 1997a). Sharold Geist, Chairman of the North Dakota Wheat Commission, concurs, noting that the CWB, while critical of EEP, clings to a different type of price discrimination. EEP was introduced by the United States in response to the unfair trading practices that existed in the world market at the time. Sarah Vogel, Commissioner of the North Dakota Department of Agriculture, contends that even though the CWB matches EEP in pricing in international markets, it does not obtain maximum prices from buyers (Furtan and Baylis, 1997).

The crux of many of the arguments about the CWB is the claim that the CWB acts as an export subsidy, and thus does not maximize Canadian producer returns. The USDA clearly sees the CWB as a policy tool. Furtan and Baylis (1997) state:

Prices of commodities in question are most often fixed directly by the STE or by the Government through parastatal organizations.... Because price stability is an integral part of the domestic policy agenda of most developed nations, many parastatal organizations also participate in intervention activities. Hence, management and disposal of stocks is a common feature of these enterprises and government-set targets for reserve stocks are maintained and managed—often exclusively—by state trading enterprises. Activities of the Canadian Wheat Board among exporters, and the Japan Food Agency (JFA) among importers, would be the best illustrations of developed country state trading enterprises being used as instruments to attain domestic policy objectives. Consequently [due to price pooling] STEs have greater flexibility in discretionary pricing in the international market (through delayed payments to domestic producers), an arrangement not available to private exporters who have to compete with other domestic sellers in acquiring exportable products. It is also suggested that STEs that control domestic supplies or exports have little uncertainty in sourcing supplies. (22–23)

Yet the USDA also notes that commercial exporters like Cargill can source from various countries to fulfill their sales commitments, a benefit that is normally unavailable to STEs.

Two groups in particular oppose the CWB. The U.S. Feed Grains Council (General Report, adopted on July 16, 1996) opposes any direct government marketing of agricultural products and the negotiation of international coarse-grains agreements. It supports the tariffication of non-tariff trade barriers and the timely elimination of such tariffs. The U.S. Wheat Associates (Winston Wilson, former President, November 18, 1996) concurred. For the Wheat Associates, the CWB monopoly has outlived its usefulness. While a practical idea during the World War-II era, it no longer serves Canadian wheat producers in terms of efficiency or net returns. Winston Wilson contended that Canadian producers have no marketing options except occasionally when the CWB permits sales into the United States (after paying a fee to the Board). Wilson wrote:

As a consequence, they are recipients of the residual that remains after relatively high pool expenses and pricing practices which are usually geared to maximizing tonnage shipped rather than net returns to producers. A free market option would well serve the Canadian farmer as well as world grain trade by at least partially eliminating one source of artificially low administered prices. Such an option would be the ultimate referendum on the future of the CWB. (Furtan and Baylis, 1997: 23)

These comments contrast with others that argue that the alternative to the CWB is not perfect competition. Norm Sullivan, President of the Montana Farmers Union, notes that the attempts by commodity groups to pry marketing authority from the non-profit CWB would divide the united marketing front that Canadian farmers have and put them at the mercy of the profit-driven MGCs. George Paul, Executive Director of the Montana Farmer's Union, says that his group enthusiastically supports the creation of a farmer-controlled International/North American Marketing Board similar to the CWB. Such a board, according to Paul, would protect the average farmer against the near-monopoly lock on the buying, grading and selling of grain now enjoyed by the giant multinational grain corporations.

Clearly, there is a perception in the United States that the CWB regularly subsidizes Canadian wheat farmers and distorts wheat trade. In reality, the CWB seeks to maximize returns to Canadian producers through price discrimination. It does not subsidize wheat producers except in years in which the pool account is negative. There were subsidies, for example, in 1990/91, but this was a result of circumstances beyond the CWB's control or influence: the Gulf War and EEP, primarily. It is not clear, when reviewing comments made by U.S. interests, whether the CWB does a good or bad job for farmers.

Various arms of the U.S. government have investigated the CWB and have found it to be operating within the law and spirit of fair trade. Unfortunately, this has not lessened the criticism by many U.S. producer groups and by the USDA. Ironically, while the CWB and its export monopoly remains a trade irritant, its removal would expand, not reduce, the volume of Canadian grain entering the U.S. market. It seems obvious that the U.S. farm lobby wants to remain silent on this issue.



## CANADA-U.S. TRADE DISPUTES: AN ETERNAL PROBLEM?

The Canada-U.S. trade disputes over agricultural trade never seem to disappear. In late 1998 the United States again brought charges of unfair trade practices against Canada. In September 1998, Governor Bill Janklow of South Dakota attempted to block Canadian exports of grain and livestock to the United States. Canada responded by accusing Janklow of blatant election year nonsense.

During this 1998 period, North Dakota farmers dumped grain on Highway 281 to protest Canadian exports. Traffic was halted for eight hours, and the farmers vowed to return unless the U.S. government acted. North Dakota farmers also blocked a CPR train by putting a tractor on the tracks. The North Dakota Wheat Commission asked Glickman to ensure that Canadian wheat was inspected to make sure it was free of diseases like karnal bunt, dwarf bunt, and flag smut. At the border crossing in Sweetgrass, Montana, for four hours, 600 American farmers blocked Canadian trucks that were carrying agricultural products. They also vowed to return (Elliott, 1998a).

As Ian Elliott notes, this is just the latest skirmish in an old trade dispute. In the mid-1980s, South Dakota blocked Canadian hogs under the guise of sanitary-phytosanitary measures. Farm groups and politicians in the northern Plains states have complained about everything from Canada's Crowsnest Pass Rate, to the operations of the CWB, and changes in border inspections. The move by some U.S. commodity groups and members of Congress toward country-of-origin labels on meats is perhaps simply a continuation in this battle (Elliott, 1998b: 4).

U.S. allegations against Canada have come under sharp criticism by U.S. commentators including Dr. Dennis Avery of the Hudson Institute, Indianapolis, Indiana, and Jonathan Schlueter of the Pacific Northwest Grain and Feed Association. Avery (1998) claims that U.S. action against Canada would set U.S. agriculture conditions back to those of the Great Depression. He notes that Dakota farmers were trying unilaterally to stop Canadian grain and livestock imports by blockading Canadian trucks and trains at the border. Even South Dakota's state troopers were stopping Canadian grain trucks and demanding proof that their loads were free of wild oats. "Nobody's grain," says Avery (1998) "is free of wild oats." The governor of South Dakota, Avery (1998) reports, has ordered his people to start handing Canadian truckers written warnings that read, "Go home or find an alternate route around South Dakota." North Dakota congressman Earl Pomeroy said all of these actions are "a very clear sign of how disgusted we are with Canadians dumping wheat into our markets." Avery (1998) writes about these actions, indicating that they are great for rural politics but are ruinous for farm policy: "North Dakota farmers and ranchers might look around them and ask how North Dakota's 650,000 residents could consume its farm output—including 900 lb. of beef and 10 bu. of grain per person per year.... Without trade, the Dakotas would drown in their own farm surplus" (5). Avery (1998) goes on to remind us of the following:

If the U.S. can violate the North American Free Trade Agreement (NAFTA) by blocking Canadian farm products, what's to stop other states from abrogating the Interstate Commerce clause of the Constitution? What if Minnesota and Nebraska denied entry to farm products from the Dakotas? Remember that the Smoot-Hawley

Tariff in 1929 triggered the Great Depression. Smoot-Hawley was designed to "protect American jobs" by raising the duties on foreign goods as high as 50%. (The current world average is 4%.) The US tariff hike touched off a world-wide tariff war. International trade came to a shuddering halt. That collapsed the world's stock markets, and the Great Depression was on. (5)

Schlueter (1998) is even less sympathetic than Avery in his release entitled, "American Consumers Don't Need Protection from Wild Oats." Schlueter states, "In a way, it is encouraging to know that the most urgent law enforcement issues facing the people of South Dakota this year focus on keeping American consumers safe from wild oats and Canadian bacon" (Schlueter, 1998). A recent USDA report shows, however, that South Dakota's own growers and processors have been ringing up record sales for livestock and commodities sold back to Canada. Schlueter (1998) goes on to state:

American trucks and rail cars will send 1.3 million tons of U.S. corn streaming north into Canada this year, along with sizable volumes of soybeans and animal feeds. For the farmers and businesses of South Dakota alone, the value of export trade with Canada is expected to top \$200 million again this year. When considered in this context, the South Dakota governor's populist campaign rhetoric begins to ring hollow, if not sound foolhardy. (12)

Schlueter (1998) notes that farm protesters in northern Montana and the Dakotas contend that the CWB illegally dumps grain into the United States at prices below the costs of production. They claim this disrupts the domestic markets for wheat produced in the United States. Schlueter (1998) writes,

As "proof" of these allegations, a grain producer from Sweetgrass, Mont., was recently quoted as saying that it cost \$5.54 to produce a bushel of wheat in his area. The fact that \$2.00 prices were being offered by local elevators in north central Montana, he reasoned, served as the smoking gun in proving the Canadians were guilty of illegal "dumping" practices. Excusing his errant logic for a moment, it is safer to assume that this grower was misquoted about these numbers than to accept the accuracy of his estimates. Because if these figures were anywhere close to being accurate, it would be the U.S. that stands exposed to charges of illegal dumping, as millions of tons of American wheat are currently being sold into global export markets at prices that are less than half of this fellow's suspect figures.

Regardless of which estimates are used, the producer's charges of alleged dumping and domestic market distortion are virtually impossible to prove when the US exported more wheat last year (28.4 million tons to 103 countries on five continents) than Canadian farmers even produced—and most often in direct competition with the CWB. The plain reality of today's grain industry is that all products must eventually find a home. Every bushel of wheat produced in South Dakota must eventually compete with grain that is produced in neighboring states or foreign countries—including Canada—to find its highest value and best use. Conversely, any grain that is denied entry to South Dakota or the US will simply wind up competing with South Dakota's wheat somewhere else, either here or abroad. (12)

Schlueter (1998) notes that, despite the recent antics along the border, the U.S. and Canada continue to enjoy the largest exchange of commerce and trade of any two



neighboring countries in the world. An estimated U.S. \$200 billion each year in products and services are exchanged. The Canadian wheat component of this trade volume for an entire year, he points out, is roughly equivalent to twelve hours of trade between the two countries. American farmers and food marketers currently enjoy a 66 percent market share of Canada's CDN \$10.3 billion annual agricultural imports—an amount equal to CDN \$18.8 million a day, 365 days a year. While commodity prices and overseas demand for American farm commodities have been dropping, the U.S. agricultural sector has enjoyed double-digit annual growth in trade with Canada throughout the 1990s. Despite the historically low exchange rate between American and Canadian dollars, Canada consistently ranks as one of the leading export markets for U.S. wheat-based food products. In 1998, export sales of value-added food products sold to Canada were at record highs. This remarkable growth rate, Schlueter says, would not be possible without the importation of milling-quality Canadian wheat, which is processed into value-added consumer products and exported back north into Canada as breakfast cereal, snack foods, crackers and cake mixes. For example, the value of imported Canadian durum is nearly equal to the value of American-made pasta products sold each year to Canada. He writes (1998), "These products are made by American processors and bakers, by American workers, earning American wages and paying U.S. taxes while using American transport and delivery services to provide high-quality foods for the enjoyment of consumers in both countries" (12).

A factor often overlooked in Canada-U.S. border disputes is that there are many qualities and types of grain. At times, the United States imports Canadian wheat because of its high quality, which is needed for blending purposes. The importance of quality difference between Canadian and American wheats is well stated by Gene Hasha (1999) in the USDA, *ERS Agricultural Outlook*:

The significance of special wheat characteristics in marketing and prices may be far greater than can be demonstrated with available data. Wheat is far from a homogeneous commodity. Five major classes are grown in the U.S.—hard red winter, hard red spring, soft red winter, durum, and white (both hard and soft varieties). While each class has a different predominant end use, the classes are also substituted for each other in many products.

Commonly quoted prices are by grade, class, and protein percentage. Grade reflects a variety of conditions affecting milling yields and costs of processing. While class indicates a range of wheat characteristics, special characteristics important to millers, which can command large price premiums, are lost in averages of published market prices. A good example is Canadian Western Extra Strong comprised mainly of the variety Glenlea (a HRS wheat). U.S. millers are importing 200,000–300,000 tons of this type of wheat for blending because its high gluten strength allows for a flour blend with stronger dough properties, especially important in the rapidly growing frozen dough market.

Wheats with a varying protein content or special characteristics may command differing relative prices among markets, so catchment basins for each wheat will be different. Some traders, particularly near the edges of catchment basins, may send some grades and types of wheat in one direction and other grades and types in another.

In recent years, some U.S. processors have maintained that adequate supplies of sufficient quality durum require imports from Canada in some years. According to

U.S. Wheat Associates quality estimates, U.S. production of Nos. 1 and 2 durum wheat fell dramatically in 1993 to less than half of U.S. durum used for food, and supplies of higher grade U.S. durum remained below food use requirements through 1997/98.

The largest annual increases in U.S. wheat imports resulted from wheat quality issues. In 1992/93, when Canadian HRS wheat quality was among the worst on record, with 39 percent graded as feed due to early frost, roughly 1 million tons of feed wheat was exported to the U.S. where the feed market was relatively strong. In the following year, the Canadian hard spring wheat crop was attacked by fusarium fungus which was brought on by extremely wet conditions throughout the growing season, causing another 1 million tons of high-protein spring wheat to be graded as feed because Canadian regulations allowed only 0.25 per cent of fusarium-damaged kernels for Nos. 2 or 3 (above feed quality). Because this feed wheat would fetch a lower price in the domestic market, much of it was exported to the U.S. and may have been converted to food use after cleaning and blending not allowed under Canadian regulations at the time. Canadian tolerances for fusarium were subsequently raised, and blending is now allowed. (13-14)

This ongoing trade dispute was highlighted in late 1998 when the U.S. Ranchers-Cattlemen Action Legal Foundation launched a formal investigation into live cattle that were exported from Canada into the United States; they requested the imposition of countervailing duties on imports of live cattle into the United States. The countervailing duty part of the case alleges that, by restricting barley exports, the CWB causes the domestic price of feed barley to be lower than it would be under a competitive market situation with multiple sellers, thus subsidizing Canadian cattle feeders with so-called cheap barley. Also, experts for the plaintiffs (for example, Carter, 1999) argued that Canadian cattle feeders get cheap barley because of inefficiencies in CWB marketing. Arguments were presented for the defendant by Schmitz and Gray (1999). The investigation into this matter was launched by the U.S. Department of Commerce in 1998.

U.S. cattle interests filed both an anti-dumping investigation and a countervailing duty investigation.

- **Anti-dumping investigations:** the present U.S. anti-dumping law is contained in title VII of the Tariff Act of 1930 as amended. The anti-dumping law provides relief in the form of special additional duties that are intended to offset margins of dumping. Anti-dumping duties are imposed when Commerce (the administering authority) has determined that imports are being, or are likely to be, sold at less than fair value in the United States; and, the ITC has determined that a U.S. industry is materially injured, or is threatened with material injury, or that the establishment of an industry in the United States is materially impeded by reason of such imports. Most investigations are conducted on the basis of a petition filed with Commerce and the Commission by or on behalf of a U.S. industry.
- **Countervailing duty investigations:** the United States countervailing duty law is set forth in section 303 and title VII of the Tariff Act of 1930. It provides for the levying of special additional duties to offset foreign subsidies on products imported into the United States. In general, procedures for such investigations are similar to those under the anti-dumping law. Petitions are filed with Commerce (the administering authority) and with the Commission. Before a countervailing duty

order can be issued, Commerce must find a countervailing subsidy. In most cases, the Commission must make an affirmative determination of material injury, threat of material injury, or material retardation by reason of the subsidized imports.

On October 4, 1999, the U.S. Department of Commerce ruled that the marketing activities of the CWB do not constitute a subsidy to Canadian producers of live cattle. The U.S. Ranchers-Cattlemen Action Legal Fund claimed that the CWB was providing a subsidy to Canadian cattle producers by restricting feed barley exports, thereby keeping domestic barley prices artificially low. The U.S. Department of Commerce made numerous price comparisons between Canadian domestic prices, U.S. domestic prices and the CWB export price to the United States. They found, in each of these comparisons, either no consistent pattern of Canadian prices being lower or that the Canadian price was often higher than the U.S. price.

The most recent investigation marks the eighth time the United States has attacked the CWB's marketing activities. This is also the eighth time U.S. scrutiny has found the CWB to be a fair and efficient trader.

In the dumping case, the International Trade Commission ruled on November 9, 1999 in favor of Canada. The Commission determined that U.S. cattle producers are not injured by Canadian cattle exports.

## SUMMARY

In recent years, trade disputes in grains between the United States and Canada have increased significantly. Wheat shipments to the United States have increased, but their level directly correlates with U.S. government policy. As the data indicate, the higher the EEP bonuses from the United States, the greater the flow of grain from Canada to the United States.

Several investigations took place regarding Canadian exports of durum to the United States. One investigation by the ITC found that Canadian durum prices were higher in Canada than in the United States. Another investigation, carried out by a binational panel, resulted in a ruling in favor of Canada. Later, the ITC undertook another investigation, and the United States demanded that Canada voluntarily agree to restrict durum exports to the United States. The quotas and tariffs were to expire on September 1, 1995. As a result, the United States is no longer in an internationally legal position to impose border measures on non-injurious Canadian wheat imports.

Canadians and Americans have many different perceptions about the grain disputes. Many of the CWB supporters in Canada contend that EEP was the major factor driving Canadian grain exports to the United States. Many U.S. producers and farm groups argued that the CWB subsidizes wheat exports to the United States. The latter view, however, was not unanimous. Some Americans have argued that the United States has no grounds for attempting to stop grain exports from Canada. If, for example, Canada is dumping wheat into the United States, then it must follow that the United States also is dumping in other markets once it exports wheat at a price below the full cost of production.

Although the specific meteorological circumstances that led to the 1993 wheat dispute have passed, tension continues to surround the Canada-U.S. grain trade. Currently, the United States is not using EEP, but because of low prices in 1998, the Commodity Credit Corporation is still in business, as it is purchasing grain at the loan rate and issuing loan-deficiency payments. Canada has completely removed the Western Grain Transportation Act (the only export subsidy on Canadian grain), which has led to an increased flow of grain into the U.S. market. Once again, pressure is mounting from U.S. legislators and grain producers to stem the Canada-U.S. grain trade with specific concern focused on Canada's state-trading status in grain. Using the arguments about lack of transparency and concern about the CWB undercutting U.S. wheat exports, U.S. trade representatives are giving notice that they plan to target STEs at the next round of WTO talks. Such notice comes despite the fact that all the investigations by the United States into CWB operations have found that the CWB operates according to all relevant trade rules.



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## CHAPTER 8

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### THE CWB AND THE BARLEY DEBATE



Photo courtesy the Rosetown Eagle; used by permission.

*Pat Gabriel was one of 1,700 farmers protesting against the proposed dual marketing system for barley at a rally in Rosetown, Saskatchewan, on August 14, 1996.*

*You've probably heard the story about the economist, the engineer and the physicist who are stranded on a desert island and are provided with only canned goods to eat. They have no means by which to open the cans and are in danger of starvation. The engineer and the physicist are at a loss about how to access their food. In desperation, they turn to the economist. His solution: "First, let's assume we have a can opener...."*

— Harvey Brooks (1993)



**B**arley, along with wheat, has always been center stage in Canada's grain industry debates. In the early 1970s, for example, the Honourable Otto Lang, even in the presence of severe criticism, removed the CWB's monopoly control over domestic marketing of feed barley. As a result, a dual feed barley market exists in Canada in which a producer can sell either to the CWB or to local users. In the 1990s, barley continues to take center stage in controversies surrounding the CWB. One major debate involved the decision by the Honourable Charles Mayer, federal Minister in charge of the CWB and member of the Conservative government, to create a continental barley market (CBM)—a single North American market—with a multiple-seller environment for feed and malting barley in the United States and Canada. Even with the CBM in place, however, the CWB single-desk system for all other markets would continue. A second major debate centered around the "barley vote." In early 1997 the Honourable Ralph Goodale, Minister of Agriculture and Agri-Food Canada for the Liberal government, called for a farm vote on dual marketing of barley, whereby the private trade could sell to the United States as well as to off-shore markets.

## **THE CONTINENTAL BARLEY MARKET ISSUE**

In March 1993, prior to the Honourable Charles Mayer's decision to implement a CBM, Carter (1993) released a study, commissioned by Agriculture Canada, entitled *An Economic Analysis of a Single North American Barley Market*. Carter (1993) assumed for his study that, under a CBM, the private sector would be free to compete with the CWB for both malting and feed barley sales to the United States. Likewise, Canadian maltsters could purchase domestic-use barley on the open market.

According to Carter (1993), the debate over the CBM proposal contained five main issues: (1) the CWB's ability to price to market, that is, charge different prices in different markets; (2) domestic pricing and marketing efficiency or lack thereof; (3) why many Canadian farmers attempt to produce malting barley; (4) the size of the western U.S. feed market and the role of barley in feed rations; and (5) the effects of subsidies provided by the U.S. government's EEP.

Carter's (1993) conclusions supporting a CBM were: (1) the CWB does not have significant market power in the United States or world barley markets; (2) Canada's domestic barley market is inefficient, but a CBM would provide incentives to become more efficient; (3) Canadian producers can compete effectively in dryland barley production, and increased competition would lead to an increase in their share of the

U.S. barley market; (4) a few industry participants who benefit from existing distortions (for example, maltsters, some line elevator companies) would lose under a CBM because their current economic status is the consequence of an old-fashioned, over-regulated framework. Such a framework is out of step with current policies to promote "free" and open markets. But losses to these few industry participants would be smaller than the benefits to most Canadians; (5) a CBM would raise annual producer revenues from barley by 17 percent; and (6) a CBM would promote freer trade, following the trend of North American market integration.

Such strong conclusions from a respected trade economist gave the federal government the support it needed to move on a CBM scheme. However, Carter's conclusions got a less accommodating response from fellow economists. In April 1993, Schmitz, Gray, and Ulrich released their study, commissioned by the prairie pools: *A Continental Barley Market: Where Are the Gains?* In contrast to Carter, they found:

- Barley producers, under the CWB, have a broad range of means to market barley, including direct sales to the CWB through periodic quotas and time-specific delivery contracts, grower contracts with companies for specific types of malting barley, off-board sales to domestic users, and sales to U.S. markets through export permits.
- Under the CWB's marketing system, export volumes of Canadian feed barley, malting barley, and malt exports have either been maintained or, in some markets, such as Japan, Saudi Arabia, and the United States, have been expanded in the last decade. The CWB has maintained, and in some cases expanded, its export volume despite competitors' predatory trade practices, such as export subsidies. The CWB has managed this by pricing in response to the competition, by having a consistently high quality product to sell, and by keeping track of a multitude of changing market conditions.
- The CWB pooled price for malting barley has averaged 60 percent higher than the pooled feed price. In contrast, the average annual price received by the U.S. producers of malting barley has only been 20 to 25 percent above the average price received for feed barley.
- The largest potential loss from a CBM would be the reduction in the price premium presently paid on malting barley. A loss would result from having a CBM in place even though malting barley exports to the United States would increase—a simple case of supply overreaching demand. The losses in the combined malting and feed barley markets would be at least CDN \$12.5 million annually.
- The imperfections in the CWB system and the dual market structure for barley in Canada could be improved internally without jumping into bed with MGCs through a CBM.
- The only feasible major market for feed barley is the Pacific Northwest, but it is only profitable with a large EEP in place. To significantly expand sales in the U.S. market, Canadian barley must either be shipped at some expense to displace barley in more distant markets, such as California, or it must displace lower-priced, less-subsidized corn in nearby markets. Expanded sales into the U.S. feed market will reduce average prices received in western Canada for exports to the United States.

- The move to a CBM would make the operation of the CWB difficult, if not impossible. Securing supplies to meet export commitments without creating the occasional domestic feed barley shortage would become difficult under a CBM. It could also lead to trade retaliation by the United States if a significant increase in exports occurred.

After these studies by Carter (1993), and subsequently by Schmitz, Gray and Ulrich (1993) surfaced, four papers appeared in the *Canadian Journal of Agricultural Economics* (1993): Carter; Gray, Ulrich and Schmitz; Veeman; and Brooks. The first two were essentially shortened versions of their earlier reports. Veeman (1993) provides an excellent comparison of the two previous studies regarding their similarities and differences. She states:

The authors of the two papers agree as would other observers, that a continental barley market can be expected to lower the premiums that the CWB historically has achieved from the sale of malting barley to Canadian maltsters. Another point of general agreement is that increased barley sales to the U.S. can be expected with the removal of the board's authority to be the sole seller of Canadian barley to the U.S. There is, however, considerable disagreement between the authors as to the relative magnitudes and consequences of these impacts. (283)

Veeman (1993) further states that, in the two studies,

quite different assumptions are made regarding the nature of U.S. demand for barley.... The CWB has contended that it strategically markets barley, exploiting price differences that have arisen due to U.S. and European Community (EC) targeted export subsidies,...it is concerned to avoid supply and price pressures on the U.S. Pacific Northwest market, since Japanese import prices for feed barley are based on the prices of barley at ports in this region (CWB, 1992). However, Carter concludes that the CWB has little ability to extract premiums based on market power, from either U.S. or off-shore barley markets. For the U.S.... import demand is relatively elastic.... Carter's conclusion that the Board lacks the ability to extract differential premiums extends beyond the U.S. market. He also argues that the Board has not demonstrated the ability to "price to market" in its barley sales to Japan, Saudi Arabia, and the former USSR, as well as the U.S. The methodology that is the basis of this conclusion can be criticized as an over-rigorous test of the board's ability to price differentially by market in that the procedure and associated statistical test are a test of the existence of imperfect competition and evidence of price discrimination in all, rather than some, of the markets included in the test. (284)

Veeman (1993) notes that in contrast to Carter's study (1993), Schmitz et al. (1993) assume that single-desk selling allows appreciable premiums to be achieved on the sale of Canadian barley to the United States. Their study assumes, she says, that prices for Canadian malting barley in Canadian and American markets would fall appreciably, relative to U.S. feed barley prices. Following changes in marketing policy, Schmitz et al. (1993) assume that Canadian malting barley would be priced at average price levels received by U.S. farmers (relative to feed barley prices), and the structure of North American malting barley prices would fall by 10 percent in response to increased imports from Canada. Veeman (1993) writes:

Many observers would view this as a "lower limit" price/premium assumption, particularly since the U.S. malting barley market has absorbed an appreciable increase in imports from Canada over the past few years through contract purchases, involving XCAN and Anheuser-Busch, of an interim-licensed six-row white aleurone barley, without indications of the drastic price and premium declines. (284)

She goes on to note that the authors of both papers agree that the Canadian feed barley exports to the United States may have been increased by EEP because of resulting increases in the U.S. domestic market prices for barley, relative to off-shore EEP-targeted markets. Where they disagree, she writes, is whether the effect is relatively minor (Carter, 1993) or major (Schmitz et al., 1993). The latter position is based on the results of a previous study employing the widely applied empirical trade model developed by the USDA (Haley et al., 1992). Carter (1993) dismisses these results based on his own single-equation model, but his conclusion, says Veeman (1993), ignores the relative price effect of EEP on U.S. prices in comparison to major import markets that have been targeted under EEP.

Veeman (1993) contends that the different conclusions about the impact of a CBM reached by Carter (1993) on the one hand, and by Schmitz et al. (1993) on the other, rest on supply-response differences. Schmitz et al. (1993) assume that barley supply response is highly price inelastic. They also dismiss any appreciable yield differences between malting and feed barley. Veeman (1993) continues, on the other hand, that Carter's specific assumption about supply responsiveness, which is couched in terms of an assumed appreciable increase in production due to higher yields of feed barley relative to malting varieties, has been criticized as being unclear and overoptimistic. His simulation assumes a 25 percent feed barley yield, but critics argue that the assumption of a 25 percent differential between malting and feed barley yields is inappropriate. Even a 15 percent yield differential for feed barley relative to malting barley, says Veeman (1993), is no longer generally applicable. Barley yields of malting and feed varieties have increased considerably over time, narrowing the difference in yields between the two groups of varieties. Veeman (1993) concludes:

A related area of conflicting assumptions and conclusions rests on differing views of whether there are efficiency costs of single-desk selling, specifically whether and by what extent marketing costs might be reduced by removal of the CWB's sole-seller status for barley sales to the U.S. Most economists would expect that competition to service a larger number of traders, and their incentives to pursue alternative transportation and handling procedures, should reduce marketing costs, at least to some degree. This possibility is ignored by Gray, Ulrich, and Schmitz. It is not ignored by Carter but the assumption that he applied in order to obtain an estimate of potential cost savings (that elevator handling costs would be avoided by trucking) has been criticized as unrealistic of likely behavior. (285)

A somewhat different view of the debate is provided by Brooks, then head of the Corporate Policy Group of CWB, in his article, "First, Let's Assume We Have a Can Opener." Brooks (1993) points out:

The environment for this debate is highly divisive and highly political, with the supporters of single-desk selling facing off against the supporters of deregulation. It

is fair to say that the reports by the economists are seen more to be participating in the politics of the issue rather than addressing the economics. On the one hand, Carter's study, commissioned by the federal government, uses numerous unsubstantiated and unrelated assumptions, all of which would illustrate potential benefits to the CBM. On the other hand, the Gray, Ulrich and Schmitz study is discounted, as it was commissioned by the three prairie cooperative grain companies favoring the maintenance of single-desk selling under the CWB. (271)

Brooks (1993) says of the study by Carter (1993):

The major conclusions of the Carter paper rely heavily on the results of the Canadian Regional Agricultural Model (CRAM) model simulation. However, very little information is provided in the paper on the model's parameters, or the assumptions that were fed into it. With this limited information, the reader cannot make an informed judgment on the appropriateness of the approach taken, and is left with many fundamental questions about the unstated results of the model. (273)

Brooks criticizes Carter for assuming that feed barley varieties have a 25 percent yield advantage over malting barley varieties, that U.S. demand for Canadian feed barley would increase by 500,000 tonnes under a CBM, and that U.S. demand for Canadian malting barley would increase by 400,000 tonnes under a CBM. Brooks (1993) says, "These assumptions, which appear to be arbitrary 'best estimates' by the author, are a significant determinant of the model's results. What they say, in effect, is that if Canada changes the way it handles export permits for barley, the U.S. demand for Canadian barley will increase by 900,000 tonnes, at the same price" (278). Brooks (1993) goes on to say that,

Prices in the barley market (and indeed, almost any market) are linked by transportation and handling costs. It is not possible to drive down the price in Montana and North Dakota without having an impact in Washington state. This modeling result is simply not credible economics. The omission of any price impact in Washington (PNW) is of great importance because it leads to the failure of the model to account for any off-shore price effects. Any drop in PNW barley prices has a direct one-to-one correspondence with the price of CWB barley sales to Japan (approximately 1 Mt per year), and may influence prices in other barley markets as well. If those effects were included in the analysis the negative results would surely outweigh the benefits shown by the model.

The U.S. barley demand equation for the model is estimated without the price of an important substitute—in particular, the price of corn. This is surprising, given that the single most important marketing factor for determining U.S. barley demand is the barley/corn price ratio. The CWB had argued that if the price of barley is close to, or above, the price of corn (as it has been almost continuously since the introduction of the U.S. Export Enhancement Program (EEP) on barley in 1985), the demand for barley is inelastic as increased consumption/usage of barley would primarily occur through substitution of barley for corn in feed rations; i.e. significantly lower barley prices would be needed to displace corn in the feed rations. As the price of barley goes to a discount to corn, one would expect the demand to be much more elastic; i.e. increased quantities of barley would not impact the barley price greatly, as it is a good substitute for corn in feed rations. The



omission of the corn price in the barley demand equation is a significant modeling error. It is curious that this specification is used, given that Carter uses the barley/corn price ratio as the dependent variable when trying to determine the impact of the EEP on the price of barley. (278–79)

Brooks (1993) notes that “the CWB can, and does, charge the Japanese significantly more for barley than other importers are willing to pay for Canadian barley. These price differentials exist because Japan is not eligible for American EEP subsidies” (279). He goes on to say:

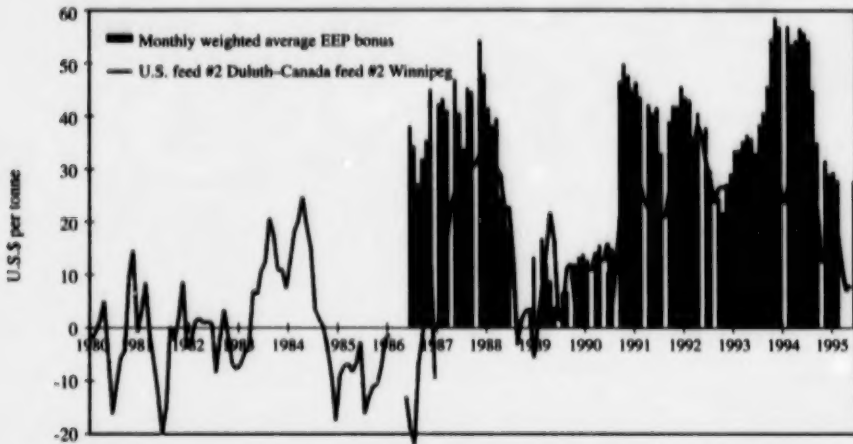
Without single-desk control over exports, the structural premiums in these markets would rapidly be bid away by competition among multiple sellers of Canadian barley. Whether or not this fits Carter’s definition of “pricing to market,” it is a significant benefit and should be accounted for in the analysis. It is also asserted that the CWB cannot price to market; i.e. sell for different prices in different markets, because “most CWB exports are handled through the private trade.” This statement indicates lack of understanding of how this business is conducted. CWB sales through the private trade are made conditional upon shipment to particular destinations and customers. The private company in the middle of the transaction receives a margin on the business. However, the price they are charged by the board varies according to which market the grain is destined for. The CWB’s ability to price to market is in no way impaired by the use of private traders. The assertion that the CWB cannot price to market is a simple error of fact and one that results in a gross underestimate of the benefits of single-desk selling in export markets. The CWB’s ability to price to market is easily verifiable by asking any private trader of export barley who knows that these price differentials exist and why. Carter was provided with some actual sales contracts that illustrate this point, and a graph of different returns from different markets was presented in the CWB’s paper.

In his discussion on the EEP, Carter concludes that the Export Enhancement program has had a minimal impact on U.S. barley prices. However, all arguments that deal only with U.S. price impacts miss the point. The real issue of concern is how much the EEP changes the relative levels of U.S. and off-shore prices. In that sense, it does not matter whether a \$30/t EEP bonus raises the U.S. price \$1/t and drives down the international price \$29/t or whether the price in the U.S. increases by \$10/t and the international price drops by \$20/t. In either case, the U.S. market has been made \$30/t more attractive relative to off-shore EEP-eligible markets. Whatever the distribution of the price impact, if the net return from selling barley in the U.S. is higher, after accounting for all costs incurred on the sale, than the net return from off-shore alternatives, then the CWB will sell barley in the U.S. (279–80)

There exists a strong statistical relationship between the monthly weighted average EEP bonus provided by the United States and the U.S./Canada cash price spread for feed barley. This relationship is shown in Figure 8.1 for 1980–95. The solid line depicts the difference between the monthly cash price of No. 2 feed barley at Duluth and the cash price of No. 2 feed barley at Winnipeg. The bars represent the monthly weighted average EEP bonus provided by the United States on feed barley exports to the EEP market.

Before EEP was introduced into international feed barley markets, the cash price spread varied around the origin. In some months, the U.S. price was higher than the

**Figure 8.1 Monthly EEP Bonus vs. the U.S./Canada Price Spread for Feed Barley (1980–95)**



*Source: Monthly average EEP subsidy compiled from data supplied by Linda Beeler, USDA, ERS; Duluth No. 2 cash price is from USDA Feed Situation and Outlook reports, various issues; Winnipeg No. 2 cash price is from Grain Trade of Canada Catalogue 22-201, Statistics Canada, various issues. Data compiled by Troy G. Schmitz for the Charter Case.*

Canadian price, but in other months the Canadian price was higher. However, in almost every month after June 1986, the U.S. cash price was higher than the Canadian cash price (Figure 8.1).

The lowest Canadian-American price spread occurs when EEP subsidies are lowest. The highest price spreads are consistent with the periods when EEP subsidies are highest. The bottom line is that EEP subsidies have a significant impact on Canada-U.S. price spreads, yet Carter and Loynes (1996) and Parsons and Wilson (1999) do not address this issue appropriately. Additionally, the barley market consists of both feed and malting barley. No comparisons are made for malting barley for which Canadian prices are significantly higher (Schmitz et al., 1993). As a result, Carter and Loynes (1996) failed to demonstrate the significant positive influence of the CWB on malting barley values.

## THE WESTERN GRAIN MARKETING PANEL (WGMP)

These academic studies did not bring the debate over barley marketing to an end. In fact, they may have intensified it. In 1994/95, the Canada-U.S. Joint Commission on Grains examined the potential for harmonizing the Canadian and U.S. marketing systems. The results of the Joint Commission were provided to a federally



appointed Western Grain Marketing Panel in 1995/96. The WGMP was mandated to examine all issues in the western Canadian grain marketing industry. It made several recommendations to the federal government that would: (1) increase the operational flexibility of the CWB in procuring grain from producers; (2) provide payment alternatives to increase flexibility of cash flow; (3) change the governance structure of the CWB to allow for direct producer control of the organization through a board of directors with producer-elected representatives; and (4) establish a full open market for feed barley, with participation by the CWB, and a continuation of the single-desk selling of malting barley by the CWB.

The WGMP based its findings on research and expert testimony, and released its report in July 1996. It had available a report by Carter and Loyns (1996), commissioned by the Alberta government and entitled *The Economics of Single Desk Selling of Western Grains*. This report was highly critical of the CWB's marketing of wheat. Also, prior to the release of Carter and Loyn's study, Kraft et al. (1996) published a study, commissioned by the CWB, entitled *Performance Evaluation of the Canadian Wheat Board*. This report discussed the premiums earned by the CWB for marketing wheat. To what extent the WGMP used these studies to reach its conclusions is not known. Some observers, however, felt that the conclusions reached regarding a full open market for feed barley with a continuation of single-desk selling of malting barley by the CWB was a political compromise.

The Minister of Agriculture and Agri-Food Canada, the Honourable Ralph Goodale, announced on October 7, 1996, that the Government of Canada would implement the majority of the operational and governance recommendations of the WGMP. However, the Panel's recommendation to create a full open market for feed barley sales while maintaining the single-desk status of the CWB in malting barley markets was not accepted. The Minister of Agriculture and Agri-Food Canada announced that a producer vote would take place on this issue. In 1997, farmers voted to maintain the CWB as a single-desk seller.

## ALLEGED INEFFICIENCIES OF THE CWB

The Carter and Loyns (1996) attack on the CWB was supported by Carter's 1993 report. They alleged that the CWB was not able to earn price premiums over multiple sellers, and that the CWB system was highly inefficient, costing prairie farmers millions of dollars. Specific to barley, Carter and Loyns (1996) estimated that the extra costs attributed to CWB marketing were approximately CDN \$37 per tonne (Table 8.1).

These alleged extra costs were first challenged by Schmitz in the Charter Case of 1996, in which Schmitz (1996a and 1996b) contended that if such costs did exist, they could not always be attributed to the CWB. Many of the alleged costs were later challenged also in Schmitz et al. (1997a and 1997b) and in Schmitz and Gray (1999). In the Charter Case, several groups and farmers sued the CWB for violating the Charter of Rights. A number of the arguments generated by the barley debate would resurface in the Charter Case. Schmitz's report (1996a), entitled *Economic Performance of the Canadian Wheat Board: Myth and Reality*, along with his, and other, affidavits, including

**Table 8.1 Extra Costs from the CWB as Estimated by Carter and Loynes (1996)**

<i>Cost Item</i>	<i>Barley CDN\$ per tonne</i>
a. CWB administration	1.75
b. Protein and grade giveaway	0.00
c. Delays in varietal development	4.00
d. Excess malting barley and maltster free storage	5.50
e. Excessive handling charges	4.00
f. Overages, demurrage, extra freight and port congestion	3.10
g. Excess cleaning	2.80
h. Production inefficiency	4.00
i. Delays in CWB payments	3.35
j. Taxpayer costs	9.00
<b>Total added costs</b>	<b>37.50</b>

*Source: Carter and Loynes (1996).*

those by Furtan, Fulton, Weisensel, and Skogstad, provided economic arguments used by the defense.

Further challenges to the findings of Carter and Loynes (1996) came in 1997 from A. Schmitz, Gray, T. Schmitz, and Storey, who released a report entitled *The CWB and Barley Marketing: Price Pooling and Single-Desk Selling*. They examined the costs that Carter and Loynes (1996) alleged were due to CWB marketing of barley. They contended that some of the costs presented in Table 8.1 are nonexistent. Furthermore, they argued that many of the costs present in the Canadian system are not unique to CWB grain marketing, and would therefore be incurred by producers and government even in the absence of the CWB as a single-desk seller (see Chapter 11, this book). For example, the cleaning tariff of CDN \$2.80 per tonne for barley was identified by Carter and Loynes (1996) as a cost imposed on western Canadian producers by the CWB. However, the cleaning of grain is a requirement of the CGC. Also, non-CWB grains are cleaned to meet export standards, and their costs tend to be higher than those for CWB grains. For instance, in 1995/96 the CGC reported terminal cleaning charges of CDN \$3.85 per tonne for barley relative to CDN \$4.97 per tonne for canola.

The Schmitz et al. (1997a) study computed price premiums earned by the CWB, using CWB sales data, CWB feed barley contract data by import market, and sales data from 1980/81 through 1994/95. Further, Schmitz et al. (1997a) tested the degree to which the CWB could price discriminate in world markets and earn price premiums for producers. It also examined the effect of EEP on the CWB's ability to price discriminate (see Chapter 11, this book). Schmitz et al. (1997a) write:

The average difference between CWB contract prices for Japan and the United States, over the 1980/81 through 1994/95 period, was significant and averaged

\$25.29/mt (tonne). The difference between CWB contract prices for the U.S. and ROW markets was also significant, with an average price difference of \$4.46/mt. The difference between CWB contract prices to Japan and the ROW markets was significant and averaged \$20.73/mt. The introduction of the U.S. EEP and the resulting feed barley trade war between the United States and the European Union increased the degree to which the CWB price discriminated. The average difference between Japan and the United States rose from \$1.46/mt in the early 1980s to \$26.84/mt in the trade-war period. Similarly, the average difference between Japan and the ROW increased from \$13.00/mt in the early 1980s to \$23.74/mt. (iv)

The study also compared the CWB with the case of multiple sellers; the authors used CWB sales data for feed barley, six-row malting barley, and two-row malting barley for the period 1985/86 through 1994/95. The model consisted of nine market segments including the Japanese feed market and the U.S. two-row malting market. They write (1997a):

The objective of CWB marketing is modeled as the allocation of the total quantity of barley that it received from producers in a given crop year across the above nine markets so as to maximize total sales revenue. In order to measure the impact that multiple sellers of Canadian feed and malting barley would have had on returns and trade flows, a comparison is made between the actual market structure (i.e. prices and quantities) observed under the CWB and the prices and quantities that would have existed if there were multiple sellers of Canadian feed and malting barley.

In this study, two economic models are developed to determine the extent of price discrimination by the CWB in world barley markets and the resulting benefits derived by western Canadian barley producers. The first model incorporates the market power of the CWB in world barley markets by assuming that the CWB allocates its sales in order to simultaneously maximize revenue across world feed barley markets, domestic and world 6-row malting barley markets, and domestic and world 2-row malting barley markets. The equilibrium domestic feed barley price is assumed to be equal to the weighted average pooled price for CWB exports of all feed barley. Using actual CWB sales data for 1985/86 through 1994/95, the excess demand elasticity for each type of Canadian barley in each market is determined by the model, given the domestic demand elasticity for Canadian feed barley and the excess demand elasticity for Canadian feed barley in the non-japanese off-shore markets. The demand elasticities are used to generate demand curves for Canadian barley in each market. The second model replaces the CWB with multiple sellers of Canadian barley by assuming that multiple sellers would introduce perfect competition in feed markets and malting barley markets. Under this assumption, the law of one price would hold across all feed barley markets. The first and second models are compared to determine the economic benefits or losses incurred under the CWB.

The key difference between the CWB system and a multiple-seller system is the ability to price discriminate. In the absence of any constraints on the quantity of feed barley, 6-row malting barley, and 2-row malting barley available for sale by Canadian producers, the law of one price would have to hold for all international and domestic barley sales in a multiple-seller environment. In the model, multiple sellers were assumed to be fully competitive, and this competition resulted in one market price for feed barley and one market price for malting barley at any point in time. This is a characteristic of all competitive markets. (iv)

The difference between the effectiveness of the CWB versus multiple sellers was calculated for each year from 1985/86 through 1994/95. Overall, the returns from CWB single-desk selling were found to be significantly higher than if the CWB were to be replaced by multiple sellers. From 1985/86 through 1994/95, the CWB earned an additional average return of CDN \$72 million annually over the multiple-seller scenario.

## SUMMARY

Since the introduction of a dual market for domestic feed barley in the early 1970s by the Honourable Otto Lang, two major debates have centered around barley marketing. The first debate involved the proposal of the Honourable Charles Mayer to create a CBM with a multiple-seller environment for feed and malting barley. The second debate surrounded the Honourable Ralph Goodale's call for a vote on a dual market structure for barley. The CWB survived both debates: on August 1, 1993, the Honourable Charles Mayer created a CBM, but the decision was reversed by a federal court ruling on September 10, 1993; and the barley vote in early 1997 favored the status quo by a fairly wide margin.

During the barley debate, academic economists entered the arena, providing economic arguments to support, or reject, a dual marketing structure for barley. At least four major studies were completed: Carter (1993); Schmitz, Gray, and Ulrich (1993); Carter and Loynes (1996); and A. Schmitz, Gray, T. Schmitz, and Storey (1997a). The Carter and Loynes (1996) study is highly critical of the CWB, while the Schmitz et al. (1993, 1997a, and 1997b) studies generally support CWB operations, with the caveat that the CWB must continue to adjust in the presence of ever-changing markets and institutions.

The Schmitz group of colleagues generally found that the CWB earned significant price premiums on malting barley. Carter and his collaborators argued, however, that, even if the CWB does earn premiums, it is so inefficient that prices at the farm gate are below what they would be in a full dual market. Schmitz, et al. (1997a), however, argue that these costs are greatly overstated and that many cannot be attributed to the CWB operations.

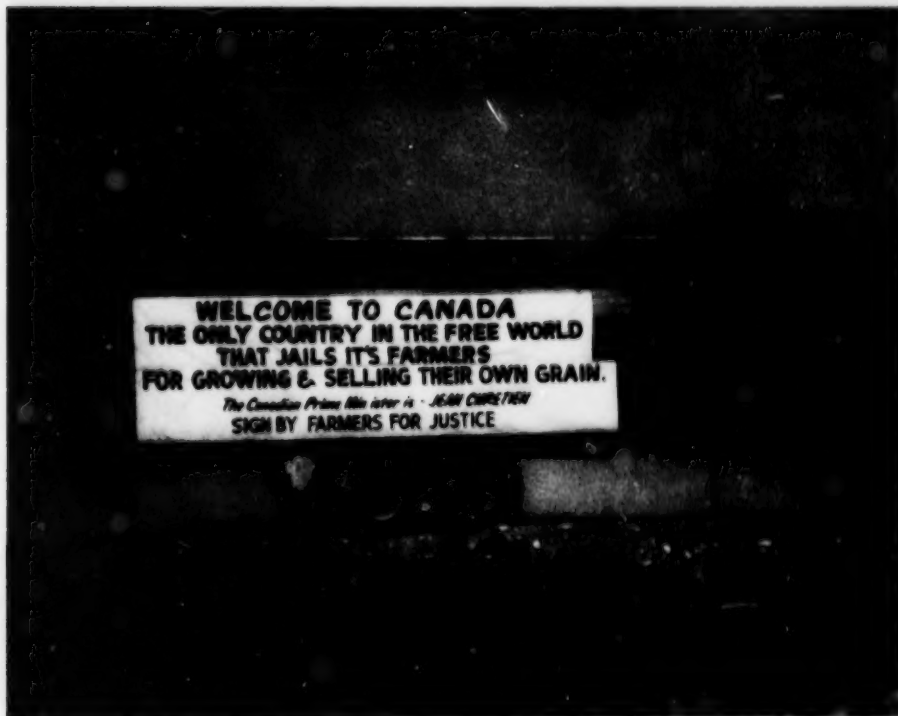


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## CHAPTER 9

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### THE CHARTER CASE AND THE CANADIAN WHEAT BOARD ACT



*Despite the ruling of a federal court in favor of the Canadian Wheat Board in the Charter Case, farm protests continue. This sign not only appears in locations across the Prairies, it was also floated in Washington, DC, during the countervail U.S. live cattle investigation brought against Canada.*

*In Canada's free and democratic society, Parliament, with its undoubted power to make laws within the subject of trade and commerce, must remain free to fix what is quintessentially a political problem by freeing or regulating the market, virtually as it and the government see fit. The CWB is an instruction of State regulation of the interprovincial and export market of grain produced in the designated area. Tomorrow, a differently constituted Parliament and government might decide in terms of economic policy, to de-regulate the market, and again in the future Parliament, directed by the elected government of that day, might yet again decide to re-regulate that market. Such decisions are for Parliament and not for the Court, so long as Parliament infringes no Charter rights, or if it does, so long as the infringement be demonstratively justified, or if a constitutional imperative exacts the unimpaired integrity of a head of legislative power.*

— the Honourable Mr. Justice Muldoon (1997)

*A huge roadside protest sign has gone up near customs stations which reads, "Welcome to Canada—the only country in the free world which jails its farmers for selling their own grain." The CBC calls them "privateers," "modern-day buccaneers," "a gang of lawbreakers who will stop at nothing."*

— Link Byfield, *British Columbia Report* (1997)



In June 1994, Ron Archibald, Edwin Cawkwell and several other farmers, along with the Alberta Barley Commission and the Western Canadian Barley Growers Association, sued the Canadian Wheat Board, arguing that the Canadian Wheat Board Act breached the rights of individual farmers guaranteed under the Canadian Charter of Rights and Freedoms (Archibald, 1994). The trial, presided over by the Honourable Mr. Justice Muldoon of the Federal Court of Canada, was held in Federal Court in Calgary in the fall of 1996.<sup>1</sup> The plaintiffs were represented by the law firm of Sugimoto and Company from Calgary, and the CWB was defended by the Federal Department of Justice. This case alone could easily be the subject for an entire book; however, only certain aspects of the case are presented in this chapter in order to examine a number of the issues surrounding the CWB. Much of the often difficult legalese of court documents is retained here, not to confound the reader, but to introduce some sense of the actual voices involved in the original case.

## **THE CANADIAN WHEAT BOARD ACT**

The plaintiffs' allegations came against policy and regulation as laid out in the Canadian Wheat Board Act.<sup>2</sup> The Act is contained in a lengthy internal CWB document, "Office Consolidation of the Canadian Wheat Board Act" (CWB, 1999c). The following selective components are presented here to give a sense of the complexity of the Canadian Wheat Board Act and of the central issues in the Charter Case.

Under the Canadian Wheat Board Act, or more correctly, under the Act and the Regulations connected with the Act, the CWB is empowered to fix quotas on each kind of grain that may be delivered by producers within a designated area to elevators and railway cars. The designated area is comprised of the provinces of Manitoba, Saskatchewan, and Alberta, those parts of the province of British Columbia known as the Peace River District, and other areas the CWB may designate under Subsection (3). The CWB has never used its power to alter the original designated area.

Under Section 30 of the Canadian Wheat Board Act, "The Governor in Council may, by regulation, apply this Part [Part II of the Act, which outlines CWB quota setting] to grain produced in any area in Canada outside the designated area specified in the regulation and to producers in respect of that grain." The Governor in Council has not, by regulation, applied Part II of the Act to any area in Canada outside the designated area as defined in Section 2(1) of the Canadian Wheat Board Act. It is important to note that the designated area does not embody all of Canada, and, in fact,

does not include *any part* of the provinces of New Brunswick, Nova Scotia, Newfoundland, Ontario, Prince Edward Island, or Quebec. Nor does it include the greater portion of the province of British Columbia, or any part of the Northwest Territories or the Yukon Territory. The plaintiffs in the Charter Case would ultimately point to what they saw as geographic discrimination by the CWB in its setting of quotas based on the designated area.

Since quotas set by the CWB affect only producers in the designated area, producers in that area are limited in respect to the amount of grain for interprovincial trade and export that they can deliver to elevators. They are also limited, through a system of permit books and quotas, in the amount of grain they can sell to the CWB. Producers outside the designated area, however, are not similarly limited. The Board is empowered to prohibit the delivery into, or the receipt by, an elevator of any kind or quality of grain. Producers of grain in the designated area are required to deliver to an elevator, and sell to the Board, all their grain intended for delivery outside the province (interprovincial trade), or for trade out of Canada (export). Producers in the designated area are subject to prosecution and penalty for delivery of their grain intended for interprovincial trade or for export to anyone other than the CWB. Producers outside the designated area are not subject to such delivery stipulations.

Upon receipt of delivery of grain from producers to elevators, the CWB separates different grains into pools, established in accordance with the Canadian Wheat Board Act. The Board thereafter makes all its payments to producers and treats all of its sales of grain in accordance with the pools. An initial payment is made to each producer who has delivered grain to the CWB. Intended as a partial payment, the initial payment is based primarily on a percentage of the price that the CWB projects it might receive on the sale of that particular grade of grain. The deduction of the total initial payments from the gross revenues from these sales, leaves a net revenue, or a net loss, in relation to sales from that pool. A further deduction, based on the CWB's operating expenses, is made from the gross sales revenue. Expenses can include those items enumerated and described in Subsections 33(1)(a) and 33(4) of the Canadian Wheat Board Act.

Where a net revenue remains in each pool after deductions, that revenue is divided *pro rata* among the producers who have delivered their grain to the CWB. The division of revenues is based on the percentage of each producer's deliveries to the total deliveries received by the Board. A final payment is made to each producer. If there is no net revenue remaining for a given pool after deductions, no further payment beyond the initial payment is made to any of the producers who delivered grain to the CWB.

For each year of the CWB's operations, the Board determines whether it has experienced a profit or a loss for that year. Calculating profit or loss depends on whether actual operating costs have exceeded, or been exceeded by, its pre-fixed administration costs, which are deducted from each of the pools of grain as described above. When the CWB earns a profit, that profit goes to the Receiver General of Canada, who allocates it to the General Revenue Fund for the Government of Canada. If the Board experiences a loss, the federal government pays the Board money in an amount sufficient to offset the loss.

Important in terms of the Charter Case and the plaintiffs' allegations against the CWB is the fact that grain producers outside the designated area are entitled to deliver

and sell their grain through interprovincial trade and export without regard to quotas fixed by the Board in relation to expected sales of, or within, a grade of grain. Neither are producers outside the designated area subject to quotas based on prices obtained by the CWB in relation to the Board's purchase of grain from actual producers, or on any expenses determined by the CWB in relation to its operations.

## **THE PLAINTIFFS' ALLEGATIONS**

The plaintiffs in the Charter Case alleged that, counter to their rights under the Charter of Rights and Freedoms, the CWB puts producers within the designated area at a disadvantage in relation to those producers operating outside the designated area. The plaintiffs claimed, "among the effects of the Act, and the Regulations in force under the Act, are that distinctions are effected between producers of grain in Canada, and by those distinctions a disadvantage is created for and experienced by actual producers within the designated area" (Archibald, 1994). The plaintiffs argued that

[the] disadvantages include that whereas a producer of grain outside the designated area may find a buyer for his grain outside the province of his residence and production, either in another province of Canada or outside Canada, and enter into a contract to sell his grain to that buyer subject only to applying for and paying a fee for a license provided for by Section 46 of the Act, for any individual plaintiff who might find a buyer for his grain outside the province of his residence and production, the only manner in which that individual plaintiff can effect a sale of his grain to that buyer is to: (1) Limit his commitments to both the amount and kind of grain he might be able to cause to be provided to the buyer; (2) Assuming the buyer agrees to the sale, first deliver and sell his grain to the Board; (3) Purchase that grain from the Board; and (4) Sell that grain to the buyer, which either results in eliminating the possibility of such a sale, or in order to effect the sale to the buyer, either results in: ...The addition to the buyer's price of a portion of the Board's expenses or in the individual plaintiff having to reduce the price to the buyer by the amount of the Board's expenses, or... Eliminates the profitability to the vendor in such a sale on the basis of eliminating or materially reducing the profit from such sale to the individual plaintiff. (6)

The plaintiffs asserted that

the Act is in its effect discriminatory on the basis of geographic location, and in this regard is contrary to, and the Board by its operations breaches the rights of the individual plaintiffs under Section 15(1) of the Charter, in that in its effects: (1) The individual plaintiffs are subject to prosecution and penalty for actions which cannot attract similar prosecution and similar penalties to Canadian producers of grain outside the designated area, and (2) The individual plaintiffs cannot market grain privately extraprovincially or in export trade, whereas Canadian producers of grain outside the designated area can so market. (6)

To simplify what is, in reality, a more complex issue than can be fully explored here, the plaintiffs felt that CWB policy was discriminatory in that it seemed to privilege one group of producers over another because of geographic location. Such discrimination, the plaintiffs claimed, affected their ability to make a living and to compete in

the grain market, and was in violation of their rights provided under the Charter of Rights and Freedoms. The plaintiffs further asserted that:

- The Act is contrary to, and the CWB, by its operations, breaches the rights of the individual plaintiffs under Section 6(2) of the Charter, or Section 15 of the Charter, or both; the individual plaintiffs cannot market grain privately extraprovincially or in export trade, thereby eliminating, limiting, and restricting the ability of the individual plaintiffs to pursue the gaining of a livelihood (that is, producing grain for interprovincial trade or export) within their respective provinces of residence.
- The Act is contrary to, and the CWB, by its operation, breaches the rights of the individual plaintiffs under Section 2(d) of the Charter, or Section 15 of the Charter, or both, in that actual producers are required by the Act to associate in economic relations with the CWB.
- The Act is *ultra vires* the Parliament of Canada, and is, therefore, of no force and effect, to the extent that it purports to regulate, in relation to trade within a province or provinces, at least within those provinces or parts of provinces within the designated area, being the trade of production of grain, or, alternatively, the trade of production of grain for interprovincial trade or export.
- The individual plaintiffs are losing sales, potential sales and profits on such sales by interprovincial trade and export by having to deliver, and sell, their grain produced within the designated area for interprovincial trade and export to the CWB.
- Loss of sales, potential sales, and profits on sales, actually endanger each plaintiff's ability to continue to maintain himself or herself within the trade of the production of grain in their provinces of residence, and further, actually endanger their ability to maintain their residences.
- The fact that the Canadian Wheat Board Act requires the individual plaintiffs to deliver and sell their grain produced within the designated area to the CWB significantly decreases the sales of such grain in Canada.
- The rights conferred on the individual plaintiffs, by virtue of Sections 1(a) and 2(e) of the Canadian Charter of Rights and Freedoms, should provide the individual plaintiffs an opportunity to challenge the Canadian Wheat Board Act and the CWB's operations, in respect to those operations' interference with economic relations.

## RELIEF SOUGHT

The plaintiffs' claims and demands included a declaration that the Canadian Wheat Board Act is (or the Canadian Wheat Board Act and the Regulations attendant to it are) contrary to:

- Section 15(1) of the Charter and accordingly the provisions of Part VII of the Act have no force and effect in relation to actual producers;
- Section 6(2)(b) of the Charter, that where the word "shall" appears in Section 32(1), that section of the Act is to be read and construed or construed as if the word "may" were present instead, and that the word "all" in Section 32(1)(a) shall have no force and effect and accordingly that section of the Canadian Wheat Board Act is to be read and construed or construed as if that word was not present;

- Section 2(d) of the Charter, that where the word "shall" appears in Section 32(1), that section of the Act is to be read and construed or construed as if the word "may" were present instead, and that the word "all" in Section 32(1)(a) shall have no force and effect and accordingly that section of the Act is to be read and construed or construed as if that word was not present therein; and
- A declaration that the Canadian Wheat Board Act is *ultra vires* the Parliament of Canada and of no force and effect in relation to the mandatory nature of delivery and sale to the CWB of all grain produced in the designated area, that where the word "shall" appears in Section 32(1), that section of the Act is to be read and construed or construed as if the word "may" were present instead, and that the word "all" in Section 32(1)(a) shall have no force and effect and, accordingly, that section of the Act is to be read and construed as if that word was not present therein.

Such demands suggest that the plaintiffs were looking for a dual market in which they would have the freedom not to market through the CWB if they chose not to. Producers "may" abide by certain regulations, instead of being told they "shall" abide by them. And not "all" producers shall be bound by regulations in certain sections of the Canadian Wheat Board Act. Ultimately, the plaintiffs claimed that their rights, as guaranteed by the Charter of Rights and Freedoms were being infringed upon by CWB policy which discriminates on the basis of geography by "designating" only certain areas in which policies apply. Such discrimination, the plaintiffs claimed, affected, or could potentially affect, their ability to maintain their current livelihoods in their current locations.

## THE CALGARY TRIAL

The Charter Case went to trial in the fall of 1996 in Calgary, Alberta. The lead counsel for the plaintiffs was Harold Groves, and the lead counsel for the Justice Department was Brian Hay. Economic arguments (made by Carter for the plaintiffs and by Schmitz for the defense) centered on the effectiveness of the CWB as a marketing institution, whereas legal arguments revolved around the issue of whether or not the CWB breaches the rights of individuals.

Mr. Justice Muldoon ruled in favor of the defense. He relied heavily on economic arguments which showed why a dual market, in which both the CWB and the private sector could operate, would not work. Many interesting exchanges took place in the courtroom among lawyers, economists, farmers, and political scientists, and between Mr. Justice Muldoon and the lawyers for both the defence and the plaintiffs. The transcripts of the Charter Case are interesting reading, but, because of the scope of this work, cannot be summarized. They are, however, public documents, available to all.

Ward Weisensel, an economist for the CWB, provided a concise overview of the operations of the CWB and the scope of its mandate. For the defense, Murray Fulton, an expert on cooperatives, alleged that a dual marketing structure for wheat would be untenable. Fulton's arguments countered those of Carter, who supported a dual market such as that which exists in the U.S. rice industry. Fulton argued that the U.S. examples of cooperatives presented in court were not applicable to the CWB. Fulton criticized Carter's and Loyens' (1996) findings, arguing that their data and economic reasoning



were flawed. Furtan said that Carter's and Loyns' analysis was a "shot in the dark" and used his report (authored with Kraft and Tyrchniewicz) on the performance of the CWB to support his argument. The Kraft et al. (1996) study used actual CWB contract sales data, whereas the studies by Carter (1993) and Carter and Loyns (1996) did not. In fact, the data Carter (1993) did use were highly suspect, a fact he admitted to Mr. Justice Muldoon under questioning. The data Carter used were inappropriate in that more pertinent data were made available to Carter by the CWB which he chose to ignore.

Andrew Schmitz, a witness for the Justice Department, used arguments from various sources, including his 1996 report, *Economic Performance of the Canadian Wheat Board: Myth and Reality*, which was prepared specifically for the Department of Justice to use in the Charter Case. In his rebuttal to Carter (1996b), Schmitz found Carter's and Loyns' allegations of the CWB's marketing inefficiencies suspect.<sup>3</sup> Schmitz argued, for example, that elevator charges are set by the elevator companies and not by the CWB.<sup>4</sup> Additionally, Schmitz contended that Carter's and Loyns' comparison between CWB costs and costs for marketing non-CWB grains were biased in favor of the open market.<sup>5</sup>

## RULING BY THE FEDERAL COURT<sup>6</sup>

In the Charter Case, Archibald et al. v. HMQ and the Canadian Wheat Board (1997), the Honourable Justice of the Federal Court of Canada Judge Muldoon ruled in favor of the CWB (Archibald, 1997).

### JUDGMENT

- On April 11, 1997, the Federal Court, Trial Division (Archibald et al., 1997), dismissed the plaintiffs' claim that the monopoly provisions of the Act are contrary to their individual rights under Sections 2(d), 6(b), and (15) of the Charter of Rights and Freedoms. The court awarded party-and-party costs payable by the plaintiffs to the defendants.
- In a lengthy decision (eighty-two pages), the Federal Court held that no individual rights under the Charter sections raised by the plaintiffs were breached. The Federal Court also went on to hold that, even if it had agreed that substantive rights had been breached, the legislation would be saved as a reasonable limit in a free and democratic country. The objective of the Canadian Wheat Board Act was to provide for the orderly marketing of grain, which has been a pressing and substantial concern for Parliament since the first monopoly was created in 1943.
- The Federal Court held that the Charter of Rights and Freedoms was never intended to be, nor is it now, an instrument to protect commercial and property rights (33).
- The Federal Court went on to rule that, as per the *Ontario Separate Schools* case, individual rights under the Charter of Rights and Freedoms cannot override the division of powers under the Canadian Constitution, and cannot deny Parliament's Section 91(2) trade and commerce power. The Federal Court held that Parliament must retain the power to fix what the court saw as a political problem, by freeing or regulating the market, as is required. The CWB is an instrument of state regulation of the interprovincial and export market of grain produced in the designated area (79-80).

**FREEDOM OF ASSOCIATION [SECTION 2(D)]**

- The Federal Court held that this section did include a right not to associate, but it held that in the context of this case, the Court must read cautiously. "In the absence of a clear case, which is not the present case, the Court ought to defer to the policies of responsible government reified in legislation adopted *inter alia* by the elected House of Commons to which the government-of-the-day is responsible, not least in matters of trade and commerce, and economic policies" (30).

**MOBILITY RIGHTS [SECTION 6(2)]**

- The Federal Court noted that Section 6(2)(b) "guarantees the right to move around within Canada to pursue the gaining of a livelihood, not the right to a livelihood itself" (35).
- The Federal Court went on to hold that none of the producers, either for or against the CWB, complained about being prevented from pursuing the gaining of a livelihood. All the plaintiffs admitted that there is nothing in the Canadian Wheat Board Act that prevents them from moving and taking up residence in any other province. On the evidence, the Court found that the Canadian Wheat Board Act does not restrict any of the plaintiffs from pursuing the gaining of a livelihood in any province (43).
- The Federal Court concluded that the evidence did not show that the plaintiffs were unable to market their produce on a viable economic basis by marketing through the CWB (or put the other way, it *was* economically viable to market wheat and barley through the CWB) (45).

**EQUALITY RIGHTS [SECTION 15]**

- As to the plaintiffs' claims that the Canadian Wheat Board Act discriminated upon the basis of residence in the designated area and/or that their wheat and barley crops were treated differently under law than were other farmers' crops in Canada, the Federal Court held that this did not amount to discrimination within the meaning of Section 15 and that:

Parliament's definition of the designated area in no way singles out western Canadian farmers in a manner which negatively impacts their fundamental human dignity or freedom. There was no evidence brought before the Court which proved the plaintiffs, as farmers who reside in the designated area, were a discreet and insular minority who are discriminated against on the basis of irrelevant personal characteristics. (51-52)

**REASONABLE LIMIT [SECTION 1]**

- The Federal Court held that even if there were breaches of the plaintiffs' individual rights, the government had demonstrated that they were reasonable limits in a free and democratic society. The Federal Court noted that grain is an important commodity for domestic consumption in, and for export from, Canada. The history of the grain economy demonstrates that free market conditions generate gluts and famines, high prices and low prices, and afford the opportunity for



speculators to take unconscionable advantage of the grain producers (as has happened in the past). Moreover the free-market forces also generate counter-market production. Canada enjoys a worldwide reputation for non-corrupt, reliable marketing of grain (53).

- The Federal Court held that there had to be some principle of deference shown by the courts to Parliament in its decisions. It held that the Federal Court must be "sensitive to the social and political context of the impugned law" and allow for difficulties of proof inherent in that context (59).
- The Federal Court held that the objective of the Canadian Wheat Board Act, for Charter of Rights and Freedoms purposes, was "to provide for the orderly marketing of grain by controlling its purchase, sale, and export through a single-desk marketing agency, the Canadian Wheat Board." The Federal Court went on to hold that the government had proven, on the balance of probabilities, that the concerns to be addressed by orderly marketing included the harm suffered by prairie farmers, which was of national concern. The Federal Court confirmed that orderly marketing is still applicable to the international markets (63-67).

### **RATIONAL CONNECTION**

The Federal Court held that:

to determine whether the first arm of the proportionality test is satisfied, the Court must look at the stated objective of the legislation and determine if there is a rational connection between the objective and what the law is going to achieve. In this Court's view, the CWB meets this test. The objective of the enabling legislation is to facilitate "orderly marketing" of Canadian grain. The defendant has established that the CWB achieves this. It has no other *raison d'être*. (67)

### **ORDERLY MARKETING IS PARLIAMENT'S DECISION**

The Federal Court noted that it is inherently dangerous for courts to dictate public policy. It agreed that the CWB's monopoly is "compelled by the facts of life: it compels the combining of efforts to a common end" (31). The Federal Court went on to say that the CWB's pooling system and its monopoly over grain exports are part of the Canadian government's economic policy. Canadian society has accepted that its federal government will determine economic policy (31).

- The Federal Court held that it

must be... "sensitive to the social and political context of the impugned law" and allow "for difficulties of proof inherent in that context." On the other hand this Court must insist that Parliament cannot envelope its laws in the mists of socioeconomics and thereby avoid demonstrating justification for the law infringing rights guaranteed by the Charter. (59)

- The Federal Court went on to hold that,

indeed, this Court does not find it an impossible prospect to be sensitive to the difficulties involved in the government's task of establishing the validity of laws in the context steeped in social science or macroeconomics, while at the same time squarely meeting its responsibility of considering the reasonableness of the government's

position. There is, of course, no doubt the role of managing the national economic environment, and coming to terms with the many complicated disciplinary perspectives which this seems to require, is the role of the government and not the courts. (60)

### GRAIN MARKETING AND AGRICULTURAL ISSUES

With respect to the interests of the producers, the Federal Court noted that the issue was not what was best for all farmers. It was not relevant to the Federal Court as to who likes or dislikes the CWB. The Federal Court was satisfied that it was clear that

farmers' opinions regarding the existence of the CWB's monopoly encompassed the entire spectrum, from the collectivist view to the unfettered enterprise view. The question of "what is best" for all farmers and whether "those who like" outnumber "those who dislike" the monopoly is one for Parliament. Whether Parliament's "chosen instrument" infringes the plaintiffs' Charter Rights is the sole issue before the Court. It is for Parliament, not the Court, nor the producers, not the Charter to prescribe what is best in economic terms for Canada and for Canadians, voters, and stay-at-homes alike. (10)

### DUAL MARKETING

- The plaintiffs and a number of CWB critics have been arguing for the last two to three years that a so-called dual market, with a voluntary CWB, would work and allow prairie farmers the freedom to choose how to market their wheat and barley. The Federal Court held that the government proved, on a balance of probabilities, that the CWB would not be viable in a dual market (69).
- The Federal Court held that the advantages of the CWB in being able to pool risk, and remove the timing of sales during peak price periods, for example, would be lost in a dual market. The Federal Court referred to three of the defendant's experts (Drs. Fulton, Furtan, and Schmitz) in establishing the principle that the so-called dual market was merely a transition to the open market, inherently unstable and counterproductive for Canadian producers (70).
- The Federal Court noted the uncontroverted facts tendered by the government's expert witnesses that "no cooperative in the U.S. has ever been successful in operating a wheat pool of any size for any substantial period of time during the past twenty or thirty years" and that Canada's own cooperative pools in the 1920s through the 1940s did not work (72).
- The Federal Court held that "the CWB has—by virtue of its monopoly—developed strong markets in countries such as China and Japan, and has increased Canada's overall market share vis-à-vis the United States" (67–68).
- The Federal Court held that the

CWB expends much effort and resources into marketing, and the evidence shows that this has accrued benefits.... The CWB has been able to keep Canada's share in the Brazilian market since 1990, when Brazil went from a single-desk importer to a free market (a significant change in market dynamics). The CWB was actually able to increase its share as against the United States, which is Canada's major competitor. (68)

The Federal Court also held that "another example...discloses that some buyers actually pay a premium to secure the CWB's sure supply and quality of grain, even in the face of heavy American export subsidies" (68).

- The Federal Court held that the conclusion that the CWB would not be viable without a monopoly is supported by two uncontroverted facts:

The first...is that "no cooperative in the U.S. has successfully operated a wheat pool of any major size for any substantial period of time during the last twenty or thirty years. The evidence is very strong that wheat pooling has been tried and it has failed...." This is in reference to pooling attempts in an open wheat market. The second is Canada's own experience with the dual market between 1935 and 1943, and as noted above, particularly in 1938 and 1943 did not work. (72)

- As to the claims by the plaintiffs that there were adverse effects caused by the CWB monopoly, the Federal Court referred to a number of alleged limitations, but recognized that the claimed limitations focused on "one side—the plaintiff's side—of the contestation before the Court" (74–75).

#### **A BRIEF HISTORICAL PERSPECTIVE**

Critics often allege that the CWB's mandate is not to achieve the highest possible prices for farmers and that the CWB has been used by the government, at times, to put a lid on farm prices. In his judgment on the Charter Case, Mr. Justice Muldoon presents an excellent perspective on this issue, both with respect to the mandate of the CWB under the Canadian Wheat Board Act and in regard to the CWB being used to control prices. Even though the Canadian Wheat Board Act does not explicitly state that the main goal of the Board is to earn the highest possible prices for producers, its activities and performance suggest that this is, indeed, the CWB's primary mission. According to Mr. Justice Muldoon:<sup>7</sup>

It is hardly a surprise that prices of agricultural commodities fluctuate. Grain production relies a great deal on climatological cooperation. It is almost a cliché to say that international grain markets are volatile (Report of Dr. Rosemary Fennell, "Agriculture Policy in the Developed World"). The Court accepts as a historical fact, one not disputed by the plaintiff's expert Dr. David Bercuson, that grain prices fluctuated wildly between 1917 and 1943. This evidence was led through the report and oral testimony of Dr. John Thompson, an expert in western Canadian agricultural history. The first federal response to price fluctuation was in 1917, when the government assumed control of all wheat for the crop years 1917–18 and 1918–19 and shut down the Winnipeg Grain Exchange's wheat futures market because of escalating prices (Report of Dr. John Thompson, "Farmers, Governments and the Canadian Wheat Board: A Historical Perspective 1919–87"). This resulted in the creation of the first Wheat Board on July 31, 1919, by order in council C 1589, made under the *War Measures Act*, 1914 (second session), Chap. 2, in order to market the 1919–20 crop. For reasons which are disputed, that Board was suspended in 1920.

In the absence of a general federal wheat pool, prairie farmers created three voluntary pools in 1923–24 and sold through the Central Selling Agency, headquartered in Winnipeg. In 1930, world wheat prices fell through the floor and

Prime Minister Bennett's government "guaranteed the pool's bank loans and assumed control of 42,047,836 bushels of unsold wheat." This continued for the next five years. By 1934 the federal government owned some 200 million bushels of wheat. In response to the suggestion by J.I. McFarland (who was Prime Minister Bennett's appointee as head of the Central Selling Agency) that the whole thing should be turned over to a government monopoly, a voluntary non-monopoly Wheat Board was established. Without this, it is alleged that Canada's market would have collapsed (exhibit 47, pp. 7-8). In 1939 the largest-ever world wide harvest again depressed wheat prices and was actually responsible for thwarting Prime Minister King's attempt to return wheat to the open market. The initial payment set that year was 80 cents per bushel, and when the market prices dropped below this mark, farmers delivered what was practically the entire western Canadian wheat crop to the Board. The result was a \$61.5 million loss (exhibit 47, pp. 11-12).

A sharp upswing in prices in 1943 had the effect of an under delivery to the Wheat Board. This threatened Canada's commitments to its wartime allied (particularly Britain) and so as to ensure that these obligations could be met the government, by order in council PC 7942, under the *War Measures Act*, R.S.C. 1927, Chap. 206, gave the Wheat Board a monopoly until July 31, 1945. This Court accepts that this was done to further national interest in wartime, i.e. it ensured the supply of wheat, a strategic resource, and arrested inflation by keeping prices artificially low (exhibit 47, p. 14; affidavit of Dr. David Bercuson, exhibit 53, p. 9; transcript: vol. XVII, p. 1724). The monopoly was extended again by order in council.

In 1946, Canada entered into a four-year agreement with Britain to supply 160 million bushels of wheat in 1946 and 1947, and 140 million bushels in 1948 and 1949 in order to secure long-term markets and prices (exhibit 47, p. 15). The evidence shows that one reason for continuing Parliament's decision to sustain the Board's monopoly in 1947 was to secure a supply to fulfil these contracts, which were struck below world prices. (The price negotiated per bushel was \$1.55; the market price was \$2.00 per bushel. By the spring of 1947 it was \$2.85 per bushel; exhibit 53, pp. 11-12). This is supported by two exhibits entered at trial. The first, exhibit 88, is the memorandum of May 7, 1946, for the "Minister" (presumably Minister of Trade and Commerce, Hon. James MacKinnon). It reads:

May 7, 1946

MEMORANDUM FOR THE MINISTER:

Re: Canadian Wheat Board

Mr. Monk\* informs me that a five-year agreement with the United Kingdom has been negotiated for the supply of 180 million bushels of wheat annually and that the Board considers that in view of this the Board will have to continue to monopolize the acquisition and legislation will be necessary for this purpose almost immediately.

[signed M. Mackenzie]  
F.P.V.\*\*

\* Henry B. Monk, the CWB's long time solicitor and counsel.

\*\* Presumably, Fred P. Varcoe, deputy minister.

The second is the December 14, 1946 memorandum to the Cabinet's wheat committee regarding the continuation of the Board's monopoly powers (exhibit 89). The opening sentence runs:

In entering into the contract to sell wheat to Britain the Government has embarked on a policy which makes necessary the continued monopolistic control of marketing of wheat, and it can be expected that an attack will be made upon any legislation for the continuation of the present controls.

This rationale was also apparent in the legislation which renewed the Wheat Board's monopoly. The preamble to *An Act to Amend the Canadian Wheat Board Act, 1935*, 11 George VI, Chap. 15 (assented to May 14, 1947) confirms this purpose of renewing the monopoly. It reads in part:

WHEREAS the Government of Canada has entered into an arrangement with the Government of the United Kingdom for the sale and delivery of substantial quantities of wheat to the government of the United Kingdom annually for a period of four years....

Subsection 4(3) of this Act also introduced the object of the Board, "marketing in an orderly manner, in interprovincial and export trade, grain grown in Canada...", which still remains today....The purpose was and is Parliament's intention to exercise its power over trade and commerce in order to secure the orderly marketing, in interprovincial and export trade, of grain grown in Canada.

What is interesting and absolutely crucial to this case, is that the next time the monopoly was renewed, in 1950, the original preamble was deleted from the Act. This was the last major modification of the Act relevant in terms of using the text to identify whether the objective was "pressing and substantial." The agreement with the U.K., which was the mainstay of the Wheat Board's export market, was no more. Every time thereafter, 1953, 1957, 1962 and 1967, when the monopoly was made permanent, the purpose of "orderly marketing" remained. The purpose of fulfilling grain contracts with the U.K., or of protecting Canada's international reputation as a grain supplier, if fulfilling these contractual obligations can be characterized this way, was no longer present in the Act and the historical record.

What was the pressing and substantial concern which warranted a unanimous parliamentary renewal from 1953 to 1967?...The only answer the evidence leads to is this. Parliament knew well the problems associated with wildly fluctuating prices, the most obvious being the harm inflicted on farmers. The "harm" suffered by prairie farmers was also of a national concern because of the role which grain played in the national economy. In fact, it had bubbled up on several occasions. As Dr. Grace Skogstad stated in her report "Agricultural policy in Canada"...price stabilization programs (such as the CWB) have provided producers "the incentive and the means to stay in production." Having learned this lesson, Parliament decided to keep the solution which landed in its lap as a result of war legislation to remedy the harm caused by the open market. The Hon. John Diefenbaker, leader of the opposition, wryly noted: "Many who opposed the wheat board as being a dangerous intrusion into private business have today become worshippers of the wheat board" (*Hansard House of Commons, Debates*, 7 June 1967, 1263). This may be attributed to the purpose of maintaining Canada's reputation as a grain supplier, or as Dr. Bercuson suggested, as a vehicle for advancing Canada's position in the

post-war world....This concern had already expired by 1967 and been replaced by a consensus that the interwar lessons requiring stabilization of prices had been learned. The notion of "orderly marketing" is, of course, still applicable to the international markets....

To determine whether the first arm of the proportionality test is satisfied, the Court must look at the stated objective of the legislation and determine if there is a rational connection between the objective and what the law is going to achieve. In this Court's view, the Wheat Board meets this test. The objective of the enabling legislation is to facilitate "orderly marketing" of Canadian grain. The defendant has established that the *Canadian Wheat Board* achieves this. It has no other *raison d'être*.

The nature of the legislation is such that the defendant needs only to establish that when the Act is applied and the CWB operates, it sells grain in an orderly fashion. The provisions of the Act, particularly sections 2 and 28, which allow the CWB to fix quotas and use a contract delivery system are the backbone of orderly marketing....Further, the actual sales of grain are coordinated by the Canadian Wheat Board's annual sales plan....More particularly, the CWB has—by virtue of its monopoly—developed strong markets in countries such as China and Japan, and has increased Canada's overall market share *vis-à-vis* the United States. (Dr. Schmitz, transcript: vol. XXII, pp. 2236 and 2239; report of Dr. Schmitz, "Economic Performance of the Canadian Wheat Board: Myth and Reality," exhibit 63, pp. iii, iv and 13).

The CWB expends much effort and resources into marketing, and the evidence shows that this has accrued benefits. One example is found in Dr. Harley Furtan's evidence. The Wheat Board has been able to keep Canada's share in the Brazilian market since 1990, when Brazil went from a single desk importer to a free market (a significant change in market dynamics). The CWB was actually able to increase its share as against the United States, which is Canada's major competitor. The evidence is that Brazilian customers had developed some "brand loyalty" to the Wheat Board because of supply reliability and after-sale support (Report of Dr. Furtan, "Performance Evaluation of the Canadian Wheat Board," exhibit 60, pp. 91–111). This is but one example which shows that there is a rational connection between the objective of the Act and what it achieves. Another example...discloses that some buyers actually pay a premium to secure the CWB's sure supply and quality of grain, even in the face of heavy American export subsidies.

## THE HONOURABLE MR. JUSTICE MULDOON'S RULING

In April 1997, the Honourable Mr. Justice Muldoon of the Federal Court of Canada ruled in favor of the CWB on the grounds that: (1) the Canadian Wheat Board Act does not breach any of the individual rights of the plaintiffs; (2) the Charter of Rights and Freedoms does not protect the individual's economic or commercial aspirations; and (3) the Canadian Wheat Board Act and the CWB's monopoly are valid in law.<sup>8</sup> According to Mr. Justice Muldoon, the Charter of Rights and Freedoms is not the proper instrument "to fix what is quintessentially a political problem." Mr. Justice Muldoon concludes:



In Canada's free and democratic society, Parliament, with its undoubted power to make laws within the class of subject of trade and commerce, must remain free to fix what is quintessentially a political problem by freeing or regulating the market, virtually as it and the government see fit. The CWB is an instrument of State regulation of the interprovincial and export market of grain produced in the designated area. Tomorrow, a differently constituted Parliament and government might decide in terms of economic policy, to de-regulate the market, and again in the future Parliament, directed by the elected government of that day, might yet again decide to re-regulate that market. Such decisions are for Parliament and not for the Court, so long as Parliament infringes no Charter rights, or if it does, so long as the infringement be demonstratively justified, or if a constitutional imperative exacts the unimpaired integrity of a head of legislative power. (79–80)

## SUMMARY

The Charter Case (Archibald et al., 1994) involved farmers and farm organizations suing the CWB, based on terms set forth in the Canadian Wheat Board Act, which they believed violated their charter rights. The plaintiffs wanted the Act to be amended so that they could market in a dual market setting in which they would no longer have to sell their grain through the CWB system, or be bound by CWB area designations and the policies effective therein.

The Honourable Mr. Justice Muldoon of the Federal Court of Canada gave a number of reasons to support his ruling in favor of the defense. These included: (1) legally, the Canadian Wheat Board Act was not in violation of the Charter of Rights and Freedoms; (2) there were strong economic arguments that the CWB was serving farmer interests well; and (3) if the CWB were replaced by a dual market, the latter would eventually give rise to a completely open market system.

## NOTES:

- 1 The Charter Case, if it accomplished nothing else, provided volumes of excellent information on issues pertaining to the CWB. This chapter focuses on the Justice's decision not to support the plaintiffs. By using this focus, the history of the CWB is well summarized, along with its major objective of orderly marketing. This brief history should dispel many of the misconceived notions about the beginning and evolution of the CWB.
- 2 The following material (Items 1–5) is taken from Archibald (1997), Court No. T-2473-93, pp. 2–5.
- 3 See Chapter 6 for the comments on barley.
- 4 See Chapters 4, 6 and 11.
- 5 See Chapter 11.
- 6 We present the Judgment Summary as well as the Reasons for Judgment given to Professor Schmitz as prepared by Brian H. Hay, Senior Counsel, Canada



Department of Justice. For the interested reader, the entire ruling by the Honourable Mr. Justice Muldoon is contained in Federal Court of Canada Trial Division Document T-2473-93 dated April 11, 1997 (Archibald, 1997).

- 7 Most of this section is taken directly from Archibald (1997).
- 8 Federal Court of Canada Trial Division, Court No. T-2473-93, April 11, 1997, The Honourable Mr. Justice Muldoon's ruling.



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## CHAPTER 10

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### GRAIN TRANSPORTATION AND THE CWB



Photo courtesy the Canadian Wheat Board.

*Despite ongoing antagonism between farmers and the railroad companies, the railway system remains the principal means of getting grain to market.*

*In the interests of producers and shippers, the Government of Canada will develop legislative safeguards to ensure the fairness and flow-through of system improvements to the benefit of those who ultimately pick up the tab, and to increase the likelihood that they both share in the benefits of this newly created system.... Among other things, this will include measures designed to cap railway revenues and increase the competitive options for shippers.*

— Honourable Ralph Goodale, Minister responsible for the CWB (1999)

*In Canada, all federally regulated railways are obliged to provide "a reasonable level of service to shippers...by law".... In particular, shippers are entitled to have their shipments moved without delay and with due care and diligence.*

— Ian MacKay, Canadian Transportation Agency, legal counsel (1999)

To understand grain marketing one must also understand grain transportation, especially in Canada where the grain-growing region is as far, or further, from export position than its competitors.<sup>1</sup> The cost of getting grain from farm to port is the single largest expense faced by Canadian producers; it comprises about one-third of the grain's port price.<sup>2</sup> Because of the long distances to port, and the lack of a prairie waterway, Canada relies on rail transportation to move grain to export position. The two railways, the CNR and the CPR, have been the subject of intense debates concerning their efficiency and their impact on prairie grain farmers (Fowke, 1957). Since its inception, the CWB has played a role in grain transportation.

From 1990-97, CWB grain has been produced on an average of 18 million seeded hectares, which are located approximately 1600 kilometers (km) from tidewater position. All farmers have the right to deliver some grain to the elevator at harvest. The bulk of grain is called forward throughout the year from the farm through CWB contracts. The export-bound grain is hauled an average 25 km to a country elevator at one of approximately 800 delivery points (as of 1997) across the Prairies (Fulton et al., 1997: 33-34). Grain is stored in the local elevator for anywhere from a few days to ten weeks. Much of it is then loaded into rail cars to be transported to port. Representatives from the railways and the elevator companies, along with farmers and the CWB, allocate rail cars to grain companies.

The grain is transported to port by either the CNR or CPR. It is delivered to terminal elevator facilities where the grain is inspected and officially graded by the Canadian Grain Commission. The majority of grain is then cleaned and loaded onto ships for transport to the buyer. Some buyers will take possession at the export port; others will take ownership when it reaches the importing country.

The CWB, as the grain marketer of wheat and barley for export and domestic human consumption, is responsible for delivering a certain quantity and quality of grain to a buyer at a specific time. Equally, the CWB wants to maximize returns to producers for their grain by minimizing the costs involved in getting it to export position. If sales contract specifications are not met because of problems in grain transportation and handling, demurrage charges or lost sales result. The CWB, therefore, needs to have a grain transportation and handling system that is both efficient and effective for it to fulfill its mandate to producers.

## RAIL REGULATION

Railways have historic importance to western Canada and to the development of its wheat economy. In the interest of developing western Canada, the Canadian government at the time subsidized the construction of the railways by giving the railway companies free land and credit. It was upon this free land, and with this credit that the railway system was built. In 1897, the federal government entered into agreement with the CPR to construct the Crowsnest Pass. In return, the CPR agreed to reduce freight rates on wheat and flour moving east, and on agricultural implements and settlers' possessions moving west.

The Crowsnest Pass Rate Agreement (CPRA) was later interpreted to cover only the rail network which existed in 1897. In 1925, the federal government changed the legislation and removed the statutory freight rate on settlers' possessions. It also extended the freight rate for wheat and flour to all existing western rail lines and to cover wheat and flour being exported through the West Coast (Kulshrethta and Devine, 1978).<sup>3</sup>

The CPRA became of increasing concern to the railways. Pressure from the railways eventually led to a number of reviews and commissions regarding the Crow rate, under the CPRA, and other regulated freight rates; the statutory rates, however, remained in place. By the 1960s, the railways were arguing for financial assistance to move grain. They pushed for a subsidy to cover what has become known as the Crow gap: the difference between the cost of moving grain and the statutory rates. The railways also asked to be able to abandon parts of the prairie branch-line network. Meanwhile, the railways were being allowed increased pricing flexibility on non-grain freight. The National Transportation Act of 1967 deregulated the non-grain freight rates and stipulated that only freight rates be compensatory. It did not, however, remove the statutory freight rates for grain.

In 1987 the National Transportation Act was changed to allow for more pricing flexibility. This revised Act allowed for confidential contracts and intermodal competition (as did the Staggers Rail Act of 1980 in the United States). The Act of 1987 also allowed for some shipper-relief provisions. These changes, however, generally pertain to non-grain commodities and are largely irrelevant for grain transport.

As time passed, and with the Crow rate still in place, the railways began to incur substantial losses from transporting western grain due to rising operating costs and fixed revenues. By 1977, the Crow rate was covering only 32 percent of the variable costs of movement, while another 18 percent was covered by the federal government branch-line subsidies (Economic Council of Canada, 1981). Railways continued to pressure the government to get rid of the Crow rate. Events came to a head in the 1970s, when the railways stopped reinvesting in capital equipment that was designed to move grain. Grain-dependent branch lines were deteriorating and the rail-car fleet was rapidly diminishing. In response, the government purchased approximately 13,000 hopper cars to transport western grain, protected 6,000 miles of branch line from abandonment, rehabilitated 4,500 miles of railway, and helped build a major grain terminal at Prince Rupert, British Columbia (Vercammen, 1996).

## **THE WESTERN GRAIN TRANSPORTATION ACT AND THE CROW BENEFIT**

In 1984, the federal government enacted the Western Grain Transportation Act to create a framework to establish fair freight rates for the railways and to specify how the total freight cost would be shared by grain producers and by the federal government. The National Transportation Agency was instructed to set freight rates so that the railways could cover their variable operating costs plus 20 percent. The additional 20 percent was to be used towards the railways' fixed costs. The freight rates were strictly distance-based; the cost of moving a tonne of grain a fixed distance was independent of whether the grain originated on a higher-cost branch line or on a lower-cost main line. Grain producers paid between 30 percent and 50 percent of this freight rate; the rest was subsidized by the federal government.

Every four years the railways were to submit to a costing review, upon which the annual freight rates would be set. This meant that any savings from productivity gains were to be passed along to producers in the form of lower freight rates every four years. As well, the Grain Transportation Agency (GTA), created in 1979, reviewed the railways' grain movement quarterly, and had the ability to fine the railways if they were not meeting performance standards.

The Western Grain Transportation Act did more than regulate freight rates and ensure service. The Act oversaw government investment in hopper cars and branch lines. Under the Act, the GTA acted as a single body coordinating the many aspects of the grain transportation system by allocating cars on a ship-to-sales system, and coordinating rail capacity and sales. Since there was the provision for agreements on variable rates to be reached between shippers and the railways, not all rates were charged by railways at the same level as those set by the Act. Elevators were sometimes able to obtain special rates for large-volume movements, which were often shipped from the newly constructed inland terminals (Fulton et al., 1998).

The federal government reduced the freight rate for western grain producers by giving the railways subsidies that included an annual CDN \$658 million Crow Benefit payment. According to Vercammen (1996), "The total annual subsidy approached \$700 million by the late 1980s and represented about 70 percent of the total freight charge" (397).

### **WHO GETS THE CROW BENEFIT?**

Many farmers and farm leaders were not satisfied with the answers as to why the CPRA was abandoned. What became known as the Crow Debate centered on whether to continue to pay the railways the Crow Benefit or to pay the benefit directly to producers in either yearly installments or in a lump sum. Certain farm groups, such as the Western Canadian Wheat Growers Association and the Canadian Cattlemen's Association (CCA), wanted the Crow Benefit to be paid to the producers and not to the railways, arguing that the Prairies would gain from the value-added activities resulting from Crow Benefits paid to producers. The Saskatchewan Wheat Pool (SWP), the NFU and others opposed this proposal; they believed that the Crow Benefit should continue



to go to the railways to support the export of grain as a raw product. One group, the Keystone Agricultural Producers, almost lost its farm organization over this issue, because its producers could not agree on the method of payment.

Many events forced a resolution to the Crow Debate. By the early 1990s, the Western Grain Transportation Act was under attack. Because the Crow Benefit payment was interpreted as an export subsidy for prairie farmers, it did not find favor within the international community. Moreover, the federal government viewed the Crow Benefit payment as non-sustainable. As a result, in December 1992, the Government Expenditures Restraint Act was introduced to reduce the annual Crow Benefit by 10 percent, to approximately CDN \$650 million or 67.2 percent of the total freight charge. A few months later, the Budget Implementation Act further reduced the government's commitment to about CDN \$528, or 51.5 percent of the total freight charge. The final blow came in February 1995, when the federal government passed Bill C-76, eliminating the Western Grain Transportation Act as of August 1, 1995. Although this legislation eliminated the Crow Benefit, the federal government was still committed to maintaining the Act's mechanism for setting rates on a cost basis. To accomplish this, the government modified the National Transportation Act of 1987 by incorporating a version of the 1994/95 Western Grain Transportation Agency schedule of freight rates into it. The government further instructed the National Transportation Agency to continue setting annual freight rates on a cost plus 20 percent margin basis (Vercammen, 1996).

Part of the debate surrounding the elimination of the Act included the amount of money producers were to receive as compensation for paying the full freight charge. According to Vercammen (1996), "With the elimination of the WGTA, the farm-level freight rate for a typical haul of 979–1000 miles approximately doubled, rising from \$14.27 per tonne in 1994/95 to \$29.42 per tonne in 1995/96." The government eventually decided to make a lump-sum payment to producers to compensate for the Crow gap. Producers received a CDN \$1.6 billion lump-sum payment, however, some have estimated that the compensation should have been three to four times this amount, given the magnitude of the Crow Benefit (Rosaasen and Schmitz, 1985).

## THE NEW CANADA TRANSPORTATION ACT

Prairie farmers faced even more changes to their grain transportation system. The federal government, while eliminating the Western Grain Transportation Act, also announced a fast-track process for prairie rail-line abandonment. After 1969, and later reinforced by the Hall Commission in 1977, there was a prohibition on the abandonment of a number of branch lines. Later, the National Transportation Act of 1987 incorporated a number of strict rules around the abandonment of branch lines, including cost-benefit analysis and community involvement. Therefore, during the years when the Western Grain Transportation Act was in effect, it was difficult for the railways to receive permission to shut down branch lines. When the Western Grain Transportation Act was eliminated, the Canada Transportation Act was passed, which loosened the regulations surrounding branch-line abandonment.

Shortly after Bill C-76 was passed and the Western Grain Transportation Act eliminated in 1995, a new act to regulate all Canadian transportation was tabled in the

House of Commons. The Canada Transportation Act replaced the National Transportation Act of 1987. This new Act dealt with the setting of western grain freight rates, rate-relief provisions, the rail-line abandonment process and all other transportation issues formerly dealt with by the National Transportation Act of 1987. Like the Act before it, the Canada Transportation Act allows freight rates to be determined by market forces in the presence of minimal government intervention (Fulton et al., 1998).

Under the Canada Transportation Act, freight rates for western grain remain capped and are allowed to increase each year by the rate of railway input-price inflation. The Act does not contain any provisions for transferring railway productivity gains back to farmers, with the exception of a revenue clawback mechanism for branch-line abandonment. (Specifically, the railways' revenue base would be lowered by CDN \$10,000 per mile of grain-dependent abandoned track. The lower revenue base would translate into a lower average freight rate for all farmers.) Also, the Act calls for a review of the maximum freight-rate legislation in 1999. If the review committee is convinced that the elimination of the cap will not adversely impact grain producers, the rate cap will be eliminated as of the year 2000, implying that the railways would be free to set rates.

The grain freight-rate cap is based on a 1992 railway costing review and is designed to cover the railways' variable costs, plus a return on capital. Like the Western Grain Transportation Act before it, the cap applies to all movement of grain, and generally keeps freight rates distance-related. As well, the cap applies equally to all crops covered under the Western Grain Transportation Act, thus limiting value-of-service pricing.

The Canada Transportation Act still contains the shipper-relief provisions—interswitching, competitive line rates and final offer arbitration—originally put in place under the 1987 National Transportation Act. These provisions were meant to encourage competition between the CPR and CNR. Interswitching and competitive line rates both allow shippers, who are captive to one railway, to force that railway to take them to the nearest junction with another railway at a set freight rate. Interswitching was originally only available to shippers who were no more than 30 km from the junction between the CNR and CPR. Competitive line rates expanded the interswitching provision to shippers further away from the interchange. The idea is that if captive shippers can negotiate a better rate with the competing railway, they can use these provisions to ensure that their railway captor will not extract excess rent for moving them to a competitor's line. The interswitching and competitive line rates are both set by the Canada Transportation Act, based on the average variable cost of the haul and past rates. These rates can only be used to the nearest interchange (Fulton et al., 1998).

There are limits to the use of interswitching and competitive line rates. Only one competitive line rate is available per route; thus, shippers cannot get a competitive line rate at the origin and another at the destination. As well, competitive line rates can only be used for a maximum of 50 percent of the haul. Therefore, shippers cannot use these provisions to get a regulated freight rate for the entire trip. Competitive line rates have not worked because the railways have not competed for traffic, that is, they have not offered a competitive rate.

There are barriers to accessing these Canada Transportation Act provisions. To access shipper relief provisions, the shipper has to be under threat of what the Act calls substantial commercial harm. In a change from the National Transportation Act of 1987, all interswitching rates and competitive line rates must be deemed commercially fair and reasonable.

Final offer arbitration is available for shippers who cannot reach agreement with their carrier. If the two parties cannot reach agreement, their dispute goes to an arbitrator who will choose between the final offer of the shipper and the final offer of the railway. This provision covers freight rates, although there is a question as to whether final offer arbitration also applies to the level of service provision.

Finally, the Canada Transportation Act specifies the process for the abandonment of branch lines. Generally, the railways must make public their intention to sell, lease, transfer, or discontinue branch lines for a forthcoming period of three years. A railway also must advertise and describe its intentions at least sixty days prior to implementing any component of its plan.

## **GOVERNMENT-OWNED HOPPER CARS**

In November 1995, with the passing of Bill C-76, a committee made up of senior executives from multinational grain companies and from other organizations, including the CWB, reached an agreement on future rail regulation (Vercammen, 1996). The committee recommended:

- (i) the freight rate should remain capped until the year 2004; (ii) the federal fleet of hopper cars should be sold to the railway at a price of \$100 million and financed with a \$1.00/tonne surcharge payable by grain producers; (iii) future railway productivity gains should be shared by giving the first half of one percent of the cost savings to the railways and splitting the remaining cost savings equally between grain producers, grain companies and the railways; (iv) a Car Allocation Policy Group (comprised of industry representatives) should be responsible for high-level car allocation decisions rather than the Western Grain Transportation Office; and (v) the CWB should allocate orders on the basis of corridors rather than train runs. (398)

Some farm groups opposed these recommendations because of the proposal that the railways be allowed to purchase the rail cars. The 13,000 government-owned hopper cars had approximately twenty years of useful life left and were valued at between CDN \$400 and CDN \$500 million. The farm groups believed that grain producers should have the option of purchasing the cars, especially if the cars were to be sold below market value. Moreover, farm leaders argued that if rail rates were further deregulated, producers would be far more effective at negotiating lower rates if they, rather than the railways, owned the rail cars. As a result, farm leaders formed a coalition to purchase the rail cars. The coalition initially consisted of ten farm groups including SARM, the NFU, the WCWGA, and the CWB Advisory Committee. The federal government first decided that it would give the railways the right of first refusal on the railway cars, but after considerable pressure from prairie farm groups, the government sale of the cars is, as of 1999, still on hold.

In an attempt to further clarify western grain transportation legislation, Bill C-31 was passed in February 1996. Bill C-31 said that the federal government would consider bids for the federal fleet of hopper cars from parties, other than the railways, if the appropriate operating arrangements were worked out beforehand with the railways. Moreover, if 10,000 or more rail cars are sold, the buyer of the federal fleet of rail cars would be compensated by being allowed to charge grain producers a CDN \$0.75 per tonne surcharge on all grain shipments. In addition, railway productivity gains would be shared, and the sharing would begin August 1, 1998.

## **RAIL-CAR ALLOCATION**

On August 1, 1995, the Western Grain Transportation Act was repealed. The GTA, which had allocated grain rail cars, ceased to exist. As a result, cars were allocated by the Western Grain Transportation Office, a group established for a one-year interim and funded by Transport Canada. It was to deal only with high-level car allocation (that is, allocating grain cars to zones) and capacity planning. Meanwhile, the industry was to develop its own transitional mechanism regarding commercial car allocation. From this effort, the Car Allocation Policy Group (CAPG) was formed (see Appendix 10A).

The Minister responsible for the CWB, Ralph Goodale, established a Senior Executive Officers' working group which recommended an industry-led rail-car allocation system. CAPG was formed, consisting of several representatives, some from the CWB. CAPG establishes policy for high-level car allocation for rate-regulated rail movements of western Canadian grain traffic. It is meant as a transition between a regulated system and a commercial mechanism for car allocation and other logistics. CAPG sets out the split between cars for CWB, non-CWB, and non-administered grains, and it sets out guidelines for rationing corridors when needed. The CAPG secretariat uses information from the grain companies, railways and the CWB to set out a four-month plan to allocate cars and to set unload targets at the ports. In general, they allocate cars on a ship-to-sales basis.

## **ROLE OF CWB IN TRANSPORTATION**

The CWB is involved in rail-car allocation for Board grains. CWB grains have a turnaround time of 17.9 days to the West Coast, versus 29.9 days for specialty crops (CWB, 1998). Changes are occurring continuously. In the late 1990s, for example, the CWB began to use a zone allocation system, replacing grain-car allocation rules based on train runs.

Since October 1998 the CWB has been allocating 70 percent of its weekly car orders to elevator companies in a zone (Figures 10.1 and 10.2). This system gives the elevator companies more flexibility in placing cars at specific elevators within the given zone. Rail cars are allocated to elevator companies based on the percentage of CWB grains the company handles. The remaining cars are allocated based on each company's performance. The CNR and CPR zones are given in Figures 10.1 and 10.2.

**Figure 10.1 Canadian Pacific Railway, Rail-Car Allocation Zones, 1999**



Source: CWB.

**Figure 10.2 Canadian National Railway, Rail-Car Allocation Zones, 1999**



Source: CWB.

The CWB also acts to ration the capacity constraint within the grain-handling system. While western Canada exports about 30 million tonnes, 20 million tonnes of which is wheat, primary elevators only have a capacity of 6.5 million tonnes. The rail system is limited to what it can handle in rail cars, and the terminal elevators have storage capacity for only 2.9 million tonnes (Demmans and Roth, 1998). Thus the grain transportation and handling system cannot handle all grain being delivered at one time. Approximately 97 percent of the wheat brought to the primary elevator is delivered to the CWB (Hucq, 1997). Under the CWB, all producers receive the same price for their grain, regardless of when in the crop year they deliver it. The result is that if producers have a discount rate greater than zero, they will have the incentive to deliver their grain as soon after harvest as possible. Thus, the CWB has to regulate the timing of deliveries throughout the year to ensure that the grain transportation and handling system does not get plugged.

In 1993–94, the CWB moved to a contract system for timing the sourcing of grain from producers. Under this system, producers sign a contract with the CWB for a certain quantity and grade of grain that must be delivered before a specific date. There are four contract deadlines in any given crop year. The CWB notifies farmers fourteen days after the contract sign-up deadline of what it will accept. Grain is then called forward by opening-contract calls as it is required for CWB sales.

Throughout the crop year the Planning and Coordination Department of the CWB, which is within the transportation group of the CWB, along with the Sales Department, discuss the Board's sales and marketing program. The Planning and Coordination Department knows what supplies are available in the country. Also, they know what has been seeded, what the crops look like, and the amounts farmers have signed under contract. (The CWB has the supply information.) The Sales Department provides the customer demand information. The two are put together into the sales projections in order to come up with answers to the following kinds of questions: What volume would the CWB like to move? Over what time period? Through which corridor? The CWB comes up with sales projections that are taken to the long-term capacity planning forum that CAPG currently provides.

The CWB plays a role in allocating port capacity, since West Coast port capacity is less than East Coast port capacity. The CWB currently allocates capacity by directing more grain through the East Coast than would be required if both ports had unlimited capacity and if rail costs were the only factor being considered. The costs incurred due to port allocation are deflected from producers by the CWB, which lowers the cost of using the St. Lawrence Seaway for grain farmers. Use of the St. Lawrence Seaway is paid for by a system of cross-subsidization whereby all grain producers pay through the price-pooling system. The full cost of using the St. Lawrence Seaway is in the neighborhood of CDN \$20.00 per tonne of grain. The CWB, instead, charges a "freight adjustment factor," which is calculated annually based on projections for sales, prices and transportation costs. In 1998, the freight adjustment factor adjusted charge was calculated to be CDN \$11.55 per tonne for the cost of moving grain by rail to Thunder Bay. Thus, the CWB subsidizes the use of the seaway by about CDN \$8.45 per tonne. This cost is taken out of the pool accounts, and amounts to about CDN \$4.00 per tonne for wheat (Gray, 1997).

In the current regulatory system, and through a series of industry agreements, the CWB plays a large role in grain transportation. It calls grain forward, allocates rail cars, and distributes traffic between Canada's eastern and western ports to allocate capacity. The following section illustrates how the CWB can also use its power to hold the railways accountable for service to producers.

## **THE CWB CASE AGAINST CNR AND CPR PERFORMANCE<sup>4</sup>**

In Canada, all federally regulated railways are legally obliged to provide a reasonable level of service to shippers. In particular, shippers are entitled to have their shipments moved without delay, and with due care and diligence. In what appears to be the biggest and most complex litigation in which the CWB has been engaged,<sup>5</sup> the CWB filed a "level of service" complaint to the Canadian Transportation Agency on



April 14, 1997 (see Appendix 10B). The complaint stated that, for the 1996/97 crop year, the railways did not fulfill their statutory obligations for both rate-regulated and commercial traffic. The complaint further stated that the CNR and CPR failed to provide adequate transportation service for grain movement from the prairie provinces to eastern and western ports and to U.S. destinations. As a result, farmers suffered substantial financial losses that included demurrage, deferred and lost sales, costs payable to customers, foreign exchange losses, additional storage costs, and interest loss to the pool account resulting in lower pool returns. Damages extended to the CWB's reputation as a reliable grain supplier to world markets.

With the complaint, the CWB wanted to test the new Canada Transportation Act legislation to improve railway service and accountability, and to provide financial compensation to producers. Under the Act rules, the complainant has to first obtain a favorable ruling from the Canadian Transportation Agency (CTA) tribunal before taking the matter to the Federal Court of Canada, where an order for damages can be made.

On April 17, 1998, the CWB and the CNR reached a settlement after several weeks of hearings. The settlement included financial compensation and rate-regulated arrangements from the CNR in exchange for the CWB dropping the level of service complaint against the railway. Upon settlement with the CNR, the CWB continued to pursue the complaint against the CPR.

After a lengthy process of hearing testimony from witnesses across the country, the CTA handed down its ruling on September 30, 1998. The ruling said that, because the severe winter weather hampered railway operations, the CPR could not be expected to meet all the unload targets. The ruling continued to say, however, that when this severe weather ended and the system began to recover, the CPR gave preferential treatment to other commodities—coal in particular. According to the three-member CTA panel, during part of the complaint period the CPR did not allocate its relative share of available capacity and resources to the CWB grain moving to Vancouver, British Columbia (Appendix 10B). On December 23, 1998, the CWB filed a statement of claim with the Federal Court of Canada against the CPR for breach of service, which cost farmers CDN \$45 million. On March 8, 1999, the settlement reached was for CDN \$15 million, one-third of the original claim.

Ultimately, the CWB was able to use its countervailing power through the CTA to hold the CPR and CNR accountable to producers. It would have been difficult for a farmer, or even groups of farmers, to be as successful as the CTA was. Thus, in the current regulatory system, the CWB may be able to play an important role in transportation as the producers' representative.

## **EVEN MORE CHANGES: THE ESTEY REVIEW**

In December 1997, the federal minister of Transport set up a review of the grain-handling and transportation industry in Canada, which had the mandate to review the freight rate cap and make recommendations to "ensure Canada has the world's most efficient, viable and competitive grain handling and transportation system" (Estey,



1998). The review looked specifically at the role of the CWB in the grain transportation system. Mr. Justice Willard Estey held a number of meetings across the Prairies during the spring and fall, and presented a final report on December 21, 1998.

Estey heard from a number of farm organizations, provincial governments and private companies regarding the future role of the CWB in transportation. Views ranged among groups. The Western Canadian Wheat Growers Association wanted to move to a system in which the CWB had no major role in grain transportation. The Alberta government, as part of the western provincial submission, recommended that the CWB continue to have the flexibility to use all of the tools necessary to maximize returns to producers with respect to its role in grain transportation. Other groups, such as the National Farmers Union, wanted an expanded role for the CWB in transportation.

Estey recommended that the federal government remove the freight rate cap. Estey also accepted the proposal by the CPR that if the cap were removed, overall freight rates would decrease over the six years following the removal of the cap. It is interesting to note that this decrease does not take into account the saving that would occur under the cap from branch-line abandonment, nor does it include any extra charges that would be levied on shippers under a bid-car system. Estey also recommended that the Car Allocation Policy Group be disbanded and that rail-car allocation be turned over to the railways with a proviso for a government dispute-settlement mechanism.

With specific reference to the CWB's role in transportation, Estey recommended that the CWB move to a system of bidding for basis. Grain companies, under this proposal, would tender bids for delivering cleaned grain to port position. The CWB, after accepting a bid from an individual grain company, would call grain forward from farmers, directing it to a specific elevator company. The initial payment would still be paid by the CWB, but handling, arranging for rail cars, transportation, and cleaning, would all be handled by grain companies.

Numerous questions have been raised over the Estey review, and some industry observers have labeled the plan unworkable (Gray, Fulton and Nolan, 1999). What would be used to calculate the revenue baseline under the CPR proposal? Who would allocate track under joint running rights? Who would qualify as a carrier? What would be the enforcement mechanism? Which party would bear the burden of proof? Other concerns were raised. For example, if the CWB were to direct a farmer to deliver to a specific elevator company, the producer would have no bargaining power to negotiate grade, dockage or trucking premiums. The CWB echoed these concerns, also noting the large administrative duties it would have to undertake to direct farmer deliveries. The CWB also worried about no longer being the legal shipper of the grain. If the Estey recommendations were adopted, the CWB feared it might become a port buyer of grain; that is, it would take possession of grain immediately prior to shipping. This would jeopardize producer benefits from grain blending, because all blending occurs before grain is shipped, and therefore before the CWB would take possession of it.

If railways and elevators have some market power, one would assume that these companies will attempt to capture rents existing in the production and sale of export grain. Fulton et al. (1998) show that, under reasonable conditions, railways and

elevators have sufficient market power to raise the total cost of moving grain to export position if rate regulation is removed and all other factors are equal.<sup>7</sup> Individual farmers do not have market power, and therefore, have little opportunity to negotiate or enforce rates or service except through agencies such as cooperative grain elevators or the CWB. Therefore, the role of the CWB in the transportation system is important to producers and their pocketbooks. The CWB has generated positive returns for producers. For example, car turnaround times indicate that Board grains have a faster turnaround time than off-Board grains.

Despite the involvement by the CWB in grain transportation, the railway companies continue to earn what some view as excess profits. A study by Travacon Research Ltd. and PRR Transportation Consulting (PRR, 1999) found that Canada's two major railways have significantly reduced their costs through productivity gains, but these savings have not been passed on to farmers. In 1997 and 1998, the railways' earnings were roughly 45 percent above long-run variable costs—20 percent above the long-run variable costs set out under the statutory freight rate legislation. According to the study, farmers are still paying freight rates based on 1992 costs, and these rates are excessive in the amount of over CDN \$5 per tonne (PRR, 1999).

In light of these findings, the study questions the government's efforts to remove the ceiling on grain freight rates. The study's results were presented to Arthur Kroeger, who has the task of implementing the recommendations of Estey. One of the reasons why the railways' freight rate charges are excessive is that, under the regulatory framework, there has not been a review of railway costs since 1992, even though the railways have reduced their costs, for example, by reducing the number of uneconomic branch lines and providing larger, more efficient, car spots at grain elevators. The CWB is not in a position to undertake a review of railway costs for handling prairie grains; hence, excessive handling costs remain. Given the rate structure set by the Canadian federal government, the major role of the CWB in grain transportation is to ensure that rail cars are available to meet export demand for prairie grains.

## **GRAIN TRANSPORTATION IN OTHER COUNTRIES**

Other countries have undergone some form of deregulation of their grain transportation system similar to those being contemplated in Canada. Examples from the United States, Australia and Argentina offer insight into what might result from proposed changes to Canadian grain transportation regulations. Because of its proximity, the United States, which deregulated its railway transportation in the late 1970s and again in 1980, is often used as a benchmark against which to compare the Canadian system. Australia is interesting because some states have recently moved to a system of open access in their railway transportation. Argentina has recently privatized its state trading enterprise, along with its railways and port facilities.

### **UNITED STATES**

In the 1970s, U.S. railways were experiencing financial problems because of competition from trucking and river barges, combined with a lack of pricing flexibility and

inability to abandon inefficient branch lines (Fulton et al., 1998). Regulation had led to a pricing structure that did not take into account trucking competition and different costs of rail haulage (Boyer, 1981). As a result, the U.S. system was deregulated in 1976 and 1980 with the passage of the Railroad Revitalization and Regulatory Reform Act and the Staggers Rail Act, respectively (Elliot, 1994). Since then, its branch-line and elevator infrastructure have gone through a large degree of rationalization<sup>8</sup> (IBI, 1994; Transport Concepts, 1995). Equally, a number of railway mergers have occurred, reducing the number of class 1 railways from thirty in 1976 to nine in 1997 (GAO, 1999).

One of the key provisions of the Staggers Rail Act was the removal of the minimum freight-rate charge. As a result, railways were allowed to engage in discriminatory pricing in an attempt to recapture some of the traffic they had lost to the waterways and to trucking. In large part, it was this variable pricing that had led to calls for rail regulation in the first place.

The Staggers Rail Act also provided for shipper-relief provisions, although these came with a number of access barriers. For example, the maximum rate provision can only be invoked when a railway is revenue adequate.

Under the Staggers Rail Act the dominant method of specifying rates and services on railway movements of grain is through contracts. It is estimated that 70 percent of all grain moved by railways is moved under contracted rates (GAO, 1999).

What has been the effect of the Staggers Rail Act? The increase in railway price flexibility, due to deregulation, had a mixed effect on the elevator industry. Larger, well-located terminals were able to negotiate lower rates, but some smaller elevators saw their margins decline (Sorenson, 1984). The Act led to increased variability in freight rates for some crops, and did not result in improved price at the farm level (Sarwar and Anderson, 1989). Further, Hanson et al. (1989) asked whether savings from contracts were passed along to farmers. They found mixed results. The effects upon farm prices varied by type of contract (whether with the purchaser or the local elevator) and by crop.

There are a number of studies that have examined the impact of U.S. rail deregulation on freight rates. From 1981 to 1991 U.S. rail rates fell by one-third and 77 percent of productivity gains were passed on to shippers in the form of reduced rates and improved service (Elliot, 1994). Although the exact amount differs, other studies also noted that there was a decrease in rates after the Staggers Rail Act was enacted, through to the mid-1980s. Deregulation did not affect all areas equally. Deregulation reduced freight rates in the Plains region of the United States where intermodal competition was limited, though it appeared to have little effect on rates in eastern corn belt areas where barges provided competition (MacDonald, 1989; Fuller et al. 1987; and Wilson, 1994). The Government of Saskatchewan (1997) examined three different shipping points in the United States, all approximately the same distance from port, served by the Burlington Northern Railway. They found that the points, which had competition from barge and other railway carriers, had significantly lower rates than points where the Burlington Northern Railway was the sole bulk carrier.

In the last few years, concerns about the railways' monopoly pricing practices have again arisen. George Paul of the Montana Farmers Union notes (1995):

Some years ago the U.S. Interstate Commerce Commission ruled that Montana grain producers are captives of Burlington Northern because it is essentially the only railroad available for hauling heavy loads such as grain. The Burlington Northern doesn't have any competition to speak of [in Montana], so it charges significantly higher rates here than in Nebraska where it does have competition from other railroads.... It is more expensive to ship wheat from Billings, Montana to Portland, Ore, than it is to ship wheat from Alliance, Nebraska to Portland,—even though both are major points, on the same line, and Billings is almost 500 miles closer to port (2).

The General Accounting Office (1999), in its study on railroad regulation, conclude that:

The reduction in railroad regulation that began in the 1970s continues to yield benefits for shippers. According to the Board, from 1982 through 1996, average real (inflation-adjusted) rail rates for Class I railroads had fallen about 46 percent. However, rates had not necessarily decreased proportionally for all shippers. GAO's analysis of real rail rates since 1990 for coal, grain (corn and wheat), certain chemicals, and transportation equipment (finished motor vehicles and parts) in selected transportation corridors found that rates had generally fallen. However, for some long-distance shipments of wheat from northern plains states such as Montana and North Dakota, rates had stayed the same as, or were higher than, they were in 1990. Rail rates were also sensitive to competition, and GAO found that rates in some markets/corridors that are considered to have less effective competition, such as the northern plains states, were generally higher than rates where there may be more effective competitive options, such as barges or other railroad. (5-6)

The GAO also surveyed U.S. rail shippers and found that 75 percent of them felt that they had, at times, been charged freight rates that were unreasonable. The shippers, for the most part, had not complained to the Interstate Commerce Commission (or what later became the Surface Transportation Board), because they felt that the rate review process was too cumbersome and expensive. Many shippers felt that these problems would diminish if there were greater rail competition, implying that U.S. shippers perceive that the U.S. railways have market power (GAO, 1999).

There appears to be general agreement that deregulation was followed by a decrease in many freight rates for agricultural commodities. It is doubtful, however, that savings were, in large part, passed on to producers.

How do the Canadian and American grain-handling and transportation systems compare? Many of the recent reports that attempt to make such comparisons find that the tariffs charged by the U.S. elevator system are lower than those charged by Canadian elevators, although Canadian freight rates are lower than those in the United States (Kearney, 1994; Heads, 1994; IBI, 1994).

According to the IBI (1994) report "Grain System Efficiency," prepared for Alberta Agriculture, there is a 30 to 35 percent over-capacity in the U.S. local elevator system (in part paid for by the Commodity Credit Corporation). There is also four times as much terminal storage in the United States as compared to Canada. The IBI (1994) study notes that there are a number of significant differences between U.S. and Canadian production and institutions, which make direct comparisons between the two systems difficult.

Parsons and Wilson (1999) argue that the Canadian grain-handling and transportation system is highly inefficient compared to that in the United States. They show that U.S. freight and elevator rates have dropped since deregulation. The problem with the analysis of Parsons and Wilson (1999) is that many of the transportation options they say will be available (and beneficial) after deregulation are already available for non-CWB grains. The option of using the Burlington Northern Railway in the United States, or using U.S. ports, is not being pursued by non-Board grain shippers, presumably because such options are not economically competitive. By not discussing the movement of non-Board grains in Canada, Parsons and Wilson (1999) do not address the question of who pays the risk premiums that arise from delivery and price risk. They suggest that under a deregulated system, risk premiums will be paid for by the shipper. This seems contrary to the current reality: risk premiums are passed back to the producer in the form of a higher basis.

## **AUSTRALIA**

Australia produces about 15 million tonnes of wheat, of which 80 percent is exported. Most farms are located within 350 km of port, though some, like areas in New South Wales, are 600 km from port. As in Canada, most Australian farmers deliver grain to their local elevator (called a bulk-handling authority), which then ships the grain by rail or truck to one of the state's ports. Because of the relatively short distances, some grain is delivered directly to port from the farm. Transport by truck is a viable alternative to transport by rail for most areas, with the exception of New South Wales where poor road conditions and geography combine to make trucking less practical.

Australia has less on-farm storage, but substantially more country and terminal capacity than Canada, giving their grain transportation system more flexibility. Each bulk-handling authority operates exclusively in one state. They are either state/territory- or farmer-owned organizations, and handle over three-quarters of the annual grain production (Kearney, 1994).

Historically, each state or territory has set up its own rail system to move bulk products (such as coal or grain) to its own port. Until recently, the railways and tracks were owned by the state governments. In 1991, various state/territory governments agreed with the national government to construct an interstate railway. Each state/territory handed over the track, rail cars, locomotives and coordination to the National Rail Corporation, owned jointly by the state/territory and federal governments, with the intention that it be privatized over a five-year period (SAF, 1999).

In 1995, some state and territory governments decided to move to an open access regime, retaining the track in public hands, and allowing private companies to compete in haulage. Open access is now in place in New South Wales, Victoria, and Queensland, as well as along the interstate line. The results of open access are mixed (SAF, 1999). Australia has found that where distances are long and/or volumes are large, open access has been successful. Where distances are short and/or volumes are small, open access has not been successful. In these situations, however, trucks provide a competitive alternative to rail cars so the lack of success of open access is not a real issue. Hence, where railways can exert market power, the introduction of open access may be beneficial to the shipper.



## ARGENTINA

In Argentina, as in Australia, most grain is produced 400 km from export terminals, although northern Argentina and Paraguay are much further (1100 km). Trucking is the primary form of transportation to port, although grain from more distant regions is transported by barge on the Paraná River (Kearney, 1994). Argentina's five railways, privatized in the early 1990s, only transport about 10 percent of total grain shipments (down from 42 percent in 1970) (CWB, 1999a; IBI, 1994).

Farmers deliver to country elevators (*acopiadores*) which then ship the grain to port primarily by truck. Trucking rates are highly seasonal. In northern Argentina, hauls to port vary from CDN \$5–\$6 per tonne off-season, to CDN \$14–\$16 following harvest. In the south, trucking to port costs CDN \$13–\$14 during peak periods, and is about 30 percent cheaper off-season. There are many country elevators that are not on a railway line. Some of the larger farms have constructed their own elevators, although MGCs own the bulk of both country and terminal facilities. Argentinean geography gives it an advantage over Canada; due to the proximity of its grain-growing region to port, trucking is often a viable transport option. The fact that producers need not rely on rail allows the primary elevator industry to be more competitive, lowering handling charges for producers.

## WHAT LESSONS DOES THIS HOLD FOR CANADA?

In the United States, even though deregulation resulted in overall freight rate decreases, some shippers did not experience rate decreases. (And it is not even clear whether farmers, and not just shippers, benefited from lower rates under deregulation.) The results of deregulation varied because of differing degrees of competing transportation alternatives. For example, in the northern states where competition was lacking, freight rate charges did not fall. Freight rates in the northern Plains states are generally higher than those in Canada. "Competitive grain freight rates in the United States are \$25 to \$30 (CDN.) per 1,000 ton-miles, similar to Canadian rates.... But 35 percent of grain incurs rates of \$40 to \$60 per 1,000 ton-miles. This is usually charged where farmers are captive to one railway" (*Western Producer*, 1999).<sup>9</sup> And one Montana newspaper reported, "Burlington Northern-Santa Fe Railway is raising its rates for westward-bound wheat and barley by \$50 a car.... [F]rom Helena, for example, the cost to ship a 60-pound bushel of wheat to Portland now is \$.86. [This equates to \$48.61 (Cdn)/tonne]" (*Great Falls Tribune*, 1998).<sup>10</sup>

Like grain producers in the northern states, Canadian grain producers are captive to two railway companies, and distances to port preclude trucking. Therefore, it is reasonable to assume that railways have some power to set rates. This hypothesis is supported by the fact that shippers in Canada, even with competitive access provisions available under the Canada Transportation Act, have not been able to induce the railways to pass back some of their recent productivity gains (Fulton et al., 1998).

Using some of the lessons from the U.S. experience, Fulton et al. (1998) develop a model of Canada's grain transportation and handling system to predict what might happen to rates under deregulation. They show that railways may have enough market power to increase their rates, forcing both country and terminal elevators to take lower

returns. They illustrate that, as in the United States, it would be in the railways' interest to differentiate rates by route and commodity. Over all, Fulton et al. (1998) predict that the cost to producers of the grain-handling and transportation system will increase under deregulation.

In Australia, open access to create a competitive environment had mixed results. A system similar to that in Australia needs further study to determine whether it would have equally mixed results in Canada.

In Argentina, since most shipping occurs by truck and not by rail, and since most grain is produced close to port, grain transportation is not a major issue. As a result, it is difficult to draw parallels between Argentina and Canada.

## UNRESOLVED CONCERNS

The question remains as to the role of the CWB in rail transportation. In the past, the CWB's role in car allocation and grain transportation provided several important functions. By being able to determine the locations where grain was sourced to meet specific sales commitments, the CWB was able to ensure that a uniform grain quality was maintained throughout the crop year and from one crop year to the next. Grain could be drawn from across the Prairies to ensure a specific blend.

By direct involvement in car allocation, the CWB also ensured equality of delivery opportunity to farmers—an important function in a system with significantly constrained capacity and price pooling. Ensuring equal delivery opportunity often meant that the CWB came into conflict with the railways and the grain companies. The CWB tried to ensure that producers on railway branch lines and/or close to small elevators had the same chance to deliver their grain throughout the crop year as those on main lines and near large terminals. This caused conflict with the railways, who preferred main-line movements, and with the grain companies, as they closed their small elevators to force grain to the large terminals.

In 1998 the movement to zone allocation impacted the CWB's powers and its role in ensuring equity. Under zone allocation the CWB's ability to ensure producers some equality of delivery opportunity is more limited. Zone allocation is a powerful tool the grain companies can use to force grain away from branch lines and smaller elevators. Zone allocation may also make it more difficult for the CWB to ensure a uniform blend of product every time. Though this may be a problem, the CWB currently maintains the power to source grain at specific elevator points, and has shown some willingness to use that power in extreme cases.

The effort to move the CWB away from its role in rail-car allocation and grain transportation was given a boost by the Estey review which recommended that the CWB require grain companies to bid for the basis and to deliver grain to the CWB at port. The more radical step to make the CWB only a port buyer—a step somewhat beyond Estey's recommendation—was being actively promoted by the Western Grain Elevator Association even before the Estey review. This total removal of the CWB from the car allocation and grain transportation role would produce drastic changes: (1) it would pave the way for a bid-car system as a way to allocate grain cars. This move would allow



the railways to exercise their monopoly powers to extract additional rents from shippers, and hence, farmers. This has certainly been the effect in the United States, though reliability of service is still a great concern for American grain shippers; (2) it would also allow the grain companies to gain the benefits of port blending if the CWB were to take possession of the grain as it was loaded into the ship, rather than as the rail car unloaded.

The farmer-elected Board of the CWB has demonstrated, in its response to Estey, that it is prepared to move the CWB to a more active role in defending what it sees as farmers' interests. In this regard, the CWB may still fight to retain a role in grain transportation and in car allocation.

The CWB's actions in defense of farmers, that is, taking the railways before the CTA in a level of service complaint, was unprecedented. It was equally significant that none of the grain companies chose to support the efforts of the CWB, even though their ability to move grain was severely impacted. In fact, represented by the Western Grain Elevator Association, many grain companies tried to undermine the CWB at the hearings, saying that the CWB might be partly to blame for the poor movement, and advocating the Board's removal to port.

Why wouldn't grain companies, instead of the CWB, take on the railways to protect volumes or to capture the benefits of freight reductions? And even if grain companies experienced economic benefits, would savings be passed on to producers?

In terms of the first question, according to a transportation expert, Paul Beingessner (1999, personal correspondence):

Grain companies don't seem to be the least bit concerned about locating where they would have access to two railways. This is despite the fact that they should know the railways refuse to compete via the measures in the act, i.e. competitive line rates. It tells me that the grain companies believe they will always be on a relatively equal footing for transportation, therefore they have little to gain by expending their resources "bargaining" with the railways.

As for the second question, whether or not grain companies pass benefits on to producers is inevitably a function of competitiveness between grain companies. This issue has been raised with regard to differing elevation charges, which are lower in the United States than in Canada (Carter and Loynes, 1996). The CWB is not responsible for elevator charges. The question remains as to why rates are lower in the United States than they are in Canada. Some have suggested that the rate difference is due to the lack of competition among grain companies in Canada (Fulton et al., 1998).

On September 29, 1999, Arthur Kroeger released his conclusions concerning the implementation of Mr. Justice Estey's recommendations. Kroeger concluded (1999):

In the search for common ground, a range of alternatives was examined that went well beyond what would have been permissible on a strict reading of our terms of reference. Nevertheless, the historic divisions among Western stakeholders in the grain handling and transportation system proved too wide to be bridged. The problem of reaching consensus was exacerbated by a degree of fear and mistrust on the part of each stakeholder group vis-à-vis the others that exceeded anything I have encountered elsewhere in the private sector. (2)

Despite the wide differences of opinion Kroeger (1999) notes between the stakeholders, he made several recommendations to the Honourable David Collenette, Canadian Minister of Transport. It remains to be seen if Collenette will implement any or all of these recommendations.

## SUMMARY

Grain transportation and handling are important components of the western Canadian grain industry. Grain transportation and handling (and, before the creation of the CWB, grain marketing) have historically been highly concentrated industries, raising concern about market power. In part, due to farmer concerns about their lack of bargaining power with elevators and railways, the industries have been highly regulated. For more than one hundred years, western Canadian farmers have had some form of regulated freight rates on export grain. The regulation began as a fixed rate, called the Crow rate, set both on grain (wheat and wheat flour) moving to export, and on settlers goods moving to the Prairies. The statutory rate on grain remained until 1984, when the government introduced the Western Grain Transportation Act, which subsidized the railways for grain shipments while setting the rates they could charge. Over time, the farmer had to pay a larger share of the freight rate. In 1995 this culminated in the elimination of the rail subsidy and the capping of freight rates, thus passing the entire rate to farmers. The question is whether the rate cap will continue.

Since the majority of CWB grains are exported, grain handling and transportation are important to CWB operations. The CWB banks on its reputation as a reliable seller of wheat and barley in the international market. Problems that occur in the grain-handling and transportation system can lead to demurrage charges and lost future sales. The CWB has a number of roles in the transportation system. The CWB calls grain forward to the elevators when it meets their sales requirements, instructing the grain companies, as agents of the Board, to pay out the initial payment to producers upon delivery. The CWB is in charge of allocating rail cars for Board grain to various zones across the Prairies. And because the CWB is responsible for having a specific grade of grain to a customer at a certain time, they are finally responsible for any problems in fulfilling that commitment.

In 1997/98, the CWB represented growers against the railways' unfair practices. The notion of countervailing power was put to the test, and the CWB was successful in pressing charges against the railways, where an individual grain farmer would have had little success. The CWB was successful in negotiating a settlement with the railways.

There are questions surrounding the role of the CWB in grain handling and transportation. Some groups want the CWB to purchase grain at export position, leaving all grain transportation and handling to the grain companies and railways. Others want the CWB to have an increased role in grain handling and transportation, and to act as the producer's negotiator with the private companies. Examples from the United States suggest that for producers to benefit from deregulation, there must be effective competition in grain handling and transportation. The suggestion under debate in the late 1990s is that of the Estey Report, whereby the CWB would bid for basis from the grain companies.

**NOTES**

- 1 Part of this chapter relies on James Vercammen (1996) and Murray Fulton et al. (1998).
- 2 Based on a basis charge of CDN \$70 per tonne for an average Saskatchewan farm and an f.o.b. wheat price of CDN \$210 per tonne, which roughly correspond to the prices in 1996/97.
- 3 See V. Fowke (1957) for an interesting historical perspective.
- 4 This section relies heavily on the ruling by the CTA (1998) against the railway companies.
- 5 According to reporter Allan Dawson of the *Manitoba Cooperator*, in this case, "One hundred boxes filled with 425 binders holding thousands of pages of documentation have been submitted. Sixty-five interviewers have filed reports and forty-two will make presentations or present witnesses" (*Manitoba Cooperator*, March 22, 1998, p. 1).
- 6 For an interesting discussion on various grain transportation options (such as bidding for basis and port buying) see Tyrchniewicz et al. (1998).
- 7 The increased total cost could come from increased costs of trucking grain to elevator, paying more to guarantee grain cars, or reduced service.
- 8 Approximately 30,000 miles of rail line (or 18 percent of the original track) was abandoned between 1983 and 1992 (IBI, 1994).
- 9 *Western Producer*, January 21, 1999, p. 4.
- 10 *Great Falls Tribune*, November 20, 1998.

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## CHAPTER 11

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### ECONOMIC PERFORMANCE OF THE CWB



Photo courtesy the Canadian Wheat Board

*Professors Hartley Furtan, Edward Tychniewicz, and Daryl Kraft present arguments in favor of the role played by the Canadian Wheat Board in marketing wheat.*

*The CWB provides excess marketing services which come at a cost to growers. The list of costs and excess charges is long, and some are significant in magnitude. The CWB faces considerable competition in world markets but it is the lack of buying competition at the farmgate that is a serious problem for growers in western Canada.*

— Carter, Loyns and Berwald (1998)

*Our evidence suggests the CWB earned prairie farmers a price premium over what a multiple-seller marketing system would have achieved. Also, the CWB has lowered the basis risk cost of grain marketing. The CWB has been able to maintain its market share in the hard red wheat market while expanding its market shares in both durum wheat and malting barley.*

— Schmitz, Furtan, Brooks, and Gray (1997)

**T**he bottom-line question for many prairie grain farmers is: Does the CWB provide significant benefits to producers? Several studies have emerged on this issue. Here we evaluate several criteria for judging the performance of the CWB. These criteria include price premiums earned by the CWB and comparisons of producer prices between the United States and Canada.

### **PRICE PREMIUMS**

Several empirical studies provide evidence that the CWB earns price premiums. Kraft, Furtan and Tyrczniewicz (1996) compared the actual prices the CWB received for wheat in export markets to prices obtainable in a multiple-agent setting. The premiums received from CWB export sales from 1980/81 through 1993/94 are shown in Table 11.1. The average price premium from 1980/81 through 1984/85 was CDN \$14.80 per tonne and the premium from 1985/86 through 1993/94 was CDN \$23.41 per tonne. Kraft et al. (1996) state:

First, the CWB earned a positive monthly premium from the market place for #1 CWRS in every month. The CWB was able to sell at a higher price than other organizations offering comparable wheat for sale. Since these grain sellers in the United States in turn purchased wheat from U.S. farmers, the price they are able to offer is limited by their selling price. In all crop years, the revenue contributed from sales of CWRS to the wheat pool account exceeded the monies which would potentially have been available in a multiple seller setting. It is possible and quite likely that in some months individual sellers would be able to outperform the average pool price. If many sellers, however, had the opportunity to access these premiums they would be bid away through arbitrage. (35)

The average premium for No. 1 CWRS, No. 2 CWRS, and No. 3 CWRS wheat exports were also positive for each year, during the period 1980/81–1993/94, but premiums on No. 1 CWRS were the largest. Kraft et al. (1996) note that the CWB performs better when No. 1 CWRS is in short supply. Starting in 1980 the premium on No. 1 CWRS was about CDN \$22.50 per tonne and fell to about CDN \$10.51 per tonne by 1985. The premiums rose once again in 1988 as a North American drought reduced wheat supplies and peaked in 1992 and 1993, as growing and harvesting conditions diminished the availability of high-quality wheat from North America. The pool year 1980/81 also saw relatively high premiums. During this time period, the CWB found itself with relatively more high-quality wheat when the world stocks were relatively low. European buyers generally expressed their preference for Canadian high-quality wheat by offering the highest price. Asian buyers tended to pay premiums in the range of U.S.

\$20 per tonne while the U.S. \$10–\$15 per tonne premiums were realized on some of the larger volume sales. In 1991/92 a premium was realized on 3 mmt, while 1.5 mmt were at par with the competition. The highest premium recorded was for a sale in which the buyer paid nearly U.S. \$50 per tonne more for No. 1 CWRS than for #1 U.S. Dark Northern Spring wheat, 14 percent protein. Less than 50,000 tonnes were sold at this premium level. The next highest premiums were for sales at prices U.S. \$30 per tonne to U.S. \$50 per tonne over competitive prices. About one mmt was sold at this level. Many of the 1991/92 sales with low, or no, premiums were to U.S. buyers. The premiums were predominantly realized from Asian and European sales. It is noteworthy that the 1991/92 average premium for No. 1 CWRS was determined to be CDN \$12.42 per tonne. This was the lowest premium year for No. 1 CWRS and reflects the relatively larger Canadian supply available that year.

EEP was in place in the United States from 1985–94. EEP had an impact on the size of the premium the CWB was able to extract from the market. Kraft et al. (1996) conclude that "The ability of a single-desk seller to keep prices from falling to the lowest marginal market price is significant" (46). Without the CWB, all Canadian wheat prices would drop to the price level in the EEP market. Between 1985 and 1994, Canadian producers would have lost an average of between CDN \$13.58 per tonne and CDN \$35.91 per tonne for No. 1 CWRS, No. 2 CWRS and No. 3 CWRS exports. If the prices were driven down to reflect the worst EEP markets, the loss to Canadian producers (in value received for their wheat) would have reached CDN \$53.77 per tonne.

Approximately one-half of all CWB exports were to commercial markets. Assuming all these commercial sales would be negotiated at prices reflecting an EEP subsidy, the prices for No. 1 CWRS, No. 2 CWRS and No. 3 CWRS realized by multiple agents would be reduced by an average of CDN \$28.47 per tonne for wheat sold in the

**Table 11.1 Canadian Wheat Board's Premium on No. 1 CWRS Export Sales, 1980/81–1993/94**

<i>Pool year</i>	<i>CDN\$/tonne<sup>1</sup></i>
1980/81	22.50
1981/82	16.26
1982/83	13.85
1983/84	10.88
1984/85	10.51
Average (1980/81–1984/85)	14.80
1985/86	25.30
1986/87	18.47
1987/88	19.96
1988/89	31.23
1989/90	21.81
1990/91	13.34
1991/92	12.42
1992/93	33.85
1993/94	34.34
Average (1985/86–1993/94)	23.41

<sup>1</sup> Assumes the Canadian prices realized by multiple sellers equal those quoted for comparable wheat in the United States, the European Union and Argentina.

Source: Kraft et al., 1996.



average EEP market and CDN \$36.41 per tonne for wheat sold in the maximum EEP market. The CWB was able, through strategic marketing, to sell more grain in the commercial markets and less grain in the EEP markets, thus avoiding some of the losses that would occur because of the export subsidy (that is, EEP). Kraft et al. (1996) conclude, "A single-desk seller like the CWB is an effective marketing structure when other countries introduce export subsidies like EEP and the EU export restitution" (47).

The Meyers Strategy Group (MSG, 1996) examined the Australian grains industry, which is characterized by single-desk marketing arrangements within each major industry sector. The objective of this study was to evaluate the benefits of the single-desk marketing of barley. Their study used a range of quantitative and qualitative analyses to assess the value of the single-desk strategy: performance criteria, economic framework, price discrimination premiums, competitor price premiums, market mix gains, and costs. Other factors were assessed through interviews with customers and a review of the CWB's practices in terms of customer perceptions, quality, pooling and cost averaging, differentiation/segregation, risk management, and research and development. Their study attempted to define the types of premiums obtained by the single desk.

The report defines three types of premiums: (1) price discrimination or discounts; (2) competitor price or discounts; and (3) market restriction or discounts. The Meyers Group found that single-desk marketing delivered benefits to barley growers through its single-desk market power. The single-desk marketing strategy had a positive impact in terms of quality control, customer service, and market development—the gains exceeded CDN \$10 per tonne. The Meyers Group study indicated that, in relation to export markets, barley producers benefited from the export disciplines exerted by the single-desk marketing. Similarly, in terms of the domestic malting barley market, the single-desk marketing provided benefits to both barley producers and maltsters.

Carter (1992), in his analysis of price premiums earned by the CWB on wheat exports to China and the Soviet Union, reached the following interesting conclusion:

A cost-minimization model cannot explain the pattern of Chinese and Soviet wheat imports. A diversification model helps explain why Canada has an abnormally high market share in the Soviet Union and China and why Canada's wheat commands a higher price in these two markets compared to wheat originating in Australia and the United States. (45–46)

Both the Soviet Union and China have been major wheat importers in the past. At one time, more than 50 percent of Canadian wheat exports went to these two markets. From 1978–88, the top three exporters to China were Canada, the United States and Australia (Appendix Table 11.1). Canada and the United States each averaged a 34 percent market share while Australia's share was 22 percent. Thus, 90 percent of China's imports of wheat came from these three countries, all of which used state trading enterprises during this period (Schmitz et al., 1999).

For 1982–88, Carter (1992) found that Canada earned significant premiums in not only the Soviet Union (CDN \$28 per tonne) and Chinese markets (CDN \$8 per tonne), but also in Japanese markets (CDN \$26 per tonne). Carter offers an explanation for this

phenomenon, since the total premiums earned in the Japanese and Soviet markets could not be entirely a result of the higher quality of Canadian wheat. The Soviet Union, it seems, was less concerned about the quality of grain for its milling and baking industry than it was about the stability of its supplier. The more likely explanation was that Exportkhleb and Ceroil Food, Inc. considered Canadian supplies more stable. This is especially the case after the 1980 grain embargo against the Soviet Union. The CWB premium in the Soviet market increased dramatically, going from an average of CDN \$5 per tonne from 1972–80 to more than CDN \$28 per tonne in the 1981–88 period (55–56).

The study by Schmitz et al. (1993) predicts the prevailing economic situation for producers should Canada introduce a continental barley market, eliminating the CWB's monopoly control of barley exports to the United States. The study's focus on malting barley shows significant premiums to Canadian malting barley producers over American producers. Under the present Canadian barley-marketing system, the CWB is the only seller of malting barley to maltsters within Canada. The malting industry in Canada is highly concentrated, with five firms controlling over 90 percent of the market and the largest firm (Canada Malting Co.) controlling over 70 percent of the market. The Canadian brewing industry is also highly concentrated, with the two largest brewing companies controlling over 80 percent of the domestic beer market. The two major brewing companies also own a controlling share of the largest malting company.<sup>1</sup> In each province, the brewing companies must sell all beer destined for sale within a particular province to the provincial liquor authority of that province.

Canadian domestic beer prices historically have been set to generate large amounts of net revenue and taxes for provincial governments (for example, the price of a bottle of beer in a lounge could easily be five to eight times the brewer's wholesale price, largely because of the high taxes and retail mark-ups involved in the sale of alcoholic beverages). In the past, wholesale beer prices for the domestic market were negotiated between maltsters and brewers (keeping in mind that the major brewers had a controlling share of the major maltsters). The maltsters, in turn, must buy all their malting barley needs from the CWB at prices negotiated between the maltsters and the CWB. The CWB prices malting barley based on competitive values in North American and world markets. The North American malt industry has historically been a premium market.

During the 1990s, the majority of firms within the Canadian malting and brewing industries have enjoyed rising sales, assets, and share prices. In fact, the major firms have expanded export sales and/or purchased foreign firms, particularly in the U.S. market.<sup>2</sup> This certainly seems to indicate that the present system for marketing malting barley has not placed undue hardship on the Canadian malting and brewing industries.

In contrast, in the United States, the malting, brewing, and beer distribution industries are less concentrated than in Canada. There is also no single-desk selling authority acting on behalf of farmers, which may explain, in part, why Canadian malting barley premiums have been significantly higher than U.S. premiums. Instead, a wide range of business arrangements are used to procure and price malting barley and beer. For malting barley, these arrangements include: (1) direct-grower contracts given out by maltsters and brewers; (2) contracts and selections made by private grain companies that act as wholesalers between producers and users of malting barley; and

(3) maltster and brewer bids on lots of barley submitted by producers and grain companies in the Minneapolis market. In addition, relative to Canada, the United States has fewer taxes on beer, and brewers can sell directly to distributors and/or retailers.

Under such marketing arrangements it is easy to understand why Canadian barley producers could enjoy higher malting barley premiums than their American counterparts. How much higher have Canadian malting premiums been compared to American premiums?

Carter, Karrenbrock, and Wilson (1989) studied the U.S.-Canada beer trade and the impact of CUSTA. One central issue in their study concerned the differences in malting barley prices between the two countries. According to the authors:

Canadian brewers made a strong argument against the agreement on the grounds that they have higher costs than American brewers and, by allowing free trade, the U.S. firms could make sizable inroads into the Canadian market. This, in turn, could cause large layoffs in the brewing industry; and lower trade barriers would cause a loss of tax revenue to the provincial liquor authorities. Lastly, the Canadians claimed that the capital investment that would be needed to allow the industry to rationalize to a point where it would become competitive with the American brewers would be extremely high.

The Brewers Association of Canada (BAC)... claimed the cost disadvantage they faced stemmed from higher input costs and lack of economies of scale, both of which can be traced to government regulations. On the input side, barley malt accounts for about 70% of the total expenditure on raw material and ingredients (excluding packaging). Canadian brewers face a substantial cost disadvantage in procuring this input due to the monopoly selling right granted to the CWB. The BAC estimates that American brewers had a cost advantage on malting barley of about \$1.80/bushel. (150-53)

Table 11.2 gives CWB final realized prices for feed and malting barley; Table 11.3 gives comparable data for the United States. For malting barley, Canadian producers earned a significant premium over U.S. producers.

Historically, feed prices in Canada have been lower than in the United States. This might be expected given two important factors: a large percentage of Canadian feed barley is exported to the United States, hence, there is an added transportation cost to Canadian barley shipments; a significant part of the EEP bonus is reflected in U.S. prices (Haley et al., 1992). This EEP factor alone was as high as U.S. \$18 per tonne.

The barley market has changed considerably, however, since the work of Carter (1993) and Schmitz et al. (1993). For example, in the late 1990s, Alberta imported feed barley from the United States. As discussed later, 1997/98 and 1998/99 barley prices in Lethbridge, Alberta were higher than those in Great Falls, Montana. Market changes were due to such factors as the removal of the Crow Benefit and EEP.

Wilson (1989) examined premiums paid for Canadian wheat sold in the export market. He examined both quality characteristics and the importance of the source of supply. Concerning quality, Wilson (1989) states: "The incidence of dockage in Canada is similar at the farm level to that in the northern United States. However, due to regulations in the marketing system, all wheat is cleaned at the point to export" (69).

**Table 11.2 Canadian Wheat Board's Final Realized Prices for Feed and Malting Barley, 1981/82–1991/92**

<i>Year</i>	<i>Feed</i>	<i>Malting</i>	<i>Malting</i>	<i>Malting</i>	<i>Malting</i>
		<i>6-Row</i>	<i>2-Row</i>	<i>6-Row premium</i>	<i>2-Row premium</i>
<i>CDN\$ per tonne</i>					
1981/82	131.07	186.79	186.79	55.72	55.72
1982/83	110.00	164.38	169.94	54.38	59.94
1983/84	138.02	169.09	178.90	31.07	50.88
1984/85	131.20	189.94	200.40	58.74	69.20
1985/86	110.00	184.40	204.40	74.40	94.40
1986/87	80.00	155.00	165.00	75.00	85.00
1987/88	74.08	145.67	151.67	71.59	77.59
1988/89	124.23	214.10	222.75	89.87	98.52
1989/90	124.38	201.41	210.91	77.03	86.53
1990/91	90.00	142.79	154.79	52.79	64.79
1991/92	107.59	126.93	142.00	19.34	34.41
<i>Average</i>					
1981/82–1991/92	110.96	170.95	180.69	59.99	70.63

*Source: CWB Annual Reports, Statistics Canada, and Grain Trade of Canada, various years.*

From 1983/84–1986/87, the levels of non-millable material were constant from each source, but there was substantially more non-millable material in shipments to Japan from the United States. According to Wilson (1989), since 1973/74, several distinct trends have resulted in price differentials between wheat of different classes and origins. The stronger, higher protein wheat prices increased relative to Hard Red Winter (HRW) Ordinary. In 1974/75, the price ratio for CWRS increased to 116 percent and 121 percent. Since then, it has increased to 125 percent. A similar pattern occurred with the DNS wheat class (72).

Importers perceive important differences in the value of wheat from different countries. Wheat of Canadian origin trades at a premium compared to U.S. wheat in the Rotterdam market (U.S. \$20 per tonne) and to Australian wheat in the Japanese market (CDN \$11 per tonne). Various national peculiarities in production/marketing contribute to the differences in implicit premiums (74).

Ultimately, Wilson (1989) concludes:

First, there is an implied value for spring-planted wheats relative to winter, at least at the higher protein levels, even while holding other factors constant. Second, there are substantial implicit premiums for Canadian wheat. Third, the implicit

**Table 11.3 Average Annual Feed Barley and Malting Barley Prices Received by U.S. Farmers, 1982-1992**

	<i>Feed barley</i>	<i>Malting barley</i>	<i>Malting/feed price spread</i>	<i>Exchange rate</i>
<i>Year</i>	<i>CDN\$ per tonne</i>			
1982	119.00	128.63	9.63	1.2337
1983	139.25	140.38	1.13	1.2324
1984	132.64	141.57	8.92	1.2951
1985	119.16	132.96	13.80	1.3655
1986	97.00	114.23	17.23	1.3895
1987	99.88	122.41	22.53	1.3260
1988	129.44	183.14	53.70	1.2307
1989	112.02	153.35	41.33	1.1840
1990	77.70	126.47	48.77	1.1668
1991	99.50	131.79	32.28	1.1523
1992	103.34	134.92	31.58	1.2500

*Source: USDA, NASS, Agricultural Prices Annual Summaries, various years.*

premium for hard wheats over soft has been diminishing in recent years. Fourth, the implied value of protein has been stable in some markets but has been gradually increasing in the past decade in the CIF Japan market. (76)

Goodwin and Smith (1995) prepared a report on price discrimination in international wheat markets. They found that the CWB pursued a worldwide pricing strategy that involved explicit price discrimination. For example, the CWB charged higher prices to buyers in Canada, the United States and Asia, and lower prices in markets such as Brazil, the Philippines, China, and South Africa. As shown earlier, it is not surprising that the CWB charges different prices in different markets in the presence of EEP. The CWB, however, does not have the market power to set world prices. In the presence of EEP, the CWB does not need market power in order to price discriminate, because EEP essentially allows the CWB to charge different prices in different markets. Hence, the CWB can capture significant price premiums over a multiple-seller situation. (Note that in a truly competitive market, with government policy absent, price discrimination requires market power; otherwise, the law of one price prevails.)

The evidence that the CWB price discriminates in world barley markets has been presented earlier. This is also a CWB pricing practice for wheat (Table 11.4). These data underscore the findings by Kraft et al. (1996) that the CWB earns price premiums on export sales.

**Table 11.4 Canadian Wheat Board Daily Export Sales of CWRS<sup>1</sup> for Selected Months, 1995**

<i>Date</i>	<i>Destination</i>	<i>Begin date</i>	<i>End date</i>	<i>Protein percent</i>	<i>Price CDN\$ per tonne</i>
10/12/95	JFA	12/01/95	01/10/96	12.5	315.70
10/12/95	Peru	11/10/95	11/30/95	12.5	273.93
10/18/95	Colombia	02/01/95	02/20/96	12.0	279.30
10/18/95	Colombia	03/25/96	04/15/96	12.0	281.92
10/18/95	Thailand	11/10/95	11/30/95	13.0	279.40
10/19/95	JFA	12/01/95	01/10/96	12.5	320.78
11/09/95	JFA	01/01/96	01/31/96	12.5	325.31
11/09/95	Colombia	12/15/95	01/10/96	12.5	277.37
11/30/95	Japan non FA	01/01/96	01/31/96	12.5	330.12
12/01/95	Thailand	01/01/96	01/31/96	13.0	291.90

<sup>1</sup>Canadian Western Red Spring wheat.

Source: Schmitz, 1996a.

## THE CWB IN AN EVER-CHANGING MARKET ENVIRONMENT

While the above findings point to the positive economic performance of the CWB, there are additional arguments that support the efficiency aspects of CWB operations: (1) the 1996 Western Grain Marketing Panel showed that the Canadian grain-marketing system generally out-performed the systems of other exporting countries. As part of their work, the WGMP requested the views of Canada's customers on various aspects of marketing and marketing systems. The results contained in their final report are illustrated in Table 11.5. This table shows that, based on the rankings of its own customers, the Canadian grain-marketing system appears to be operating extremely well. For example, (1) Canadian grain exports, which are dominated by CWB grains, were rated as having the highest price when compared with Canada's four largest competitors: the United States, Argentina, Australia, and the European Union; (2) in addition, Canada rated number one in terms of intrinsic quality, cleanliness, consistency, technical support, long-term dependability of supply, and customer service; (3) finally, Canada was tied with Australia for first place in efficiency of contract execution.

### MARKETING MARGINS

Comparing the costs associated with marketing wheat versus costs associated with marketing flax and canola, which are open-market grains in western Canada, shows



**Table 11.5 Rating of Grain Exporting Countries by Imports on a Scale of 1 to 5**

<i>Product, Service and Price</i>	<i>Argentina</i>	<i>Australia</i>	<i>Canada</i>	<i>E.U.</i>	<i>United States</i>
<b>Quality factors</b>					
Intrinsic quality	3.2	4.3	4.5	3.3	3.6
Cleanliness	3.0	4.4	4.5	3.6	3.2
Consistency	2.8	4.4	4.6	3.5	4.1
<b>Customer service factors</b>					
Technical support	1.9	3.8	4.3	2.2	3.5
Accountability	2.9	3.5	3.9	3.0	3.6
Contract execution	2.4	4.3	4.3	3.8	4.0
Customer service	2.4	4.1	4.2	3.3	3.7
Trade agreements	3.1	2.9	2.7	2.5	2.6
<b>Price factors</b>					
Price	4.0	3.7	3.6	3.9	4.3
Forward pricing	3.6	3.3	4.1	2.6	4.5
Government credit	2.8	2.0	3.1	1.8	3.7

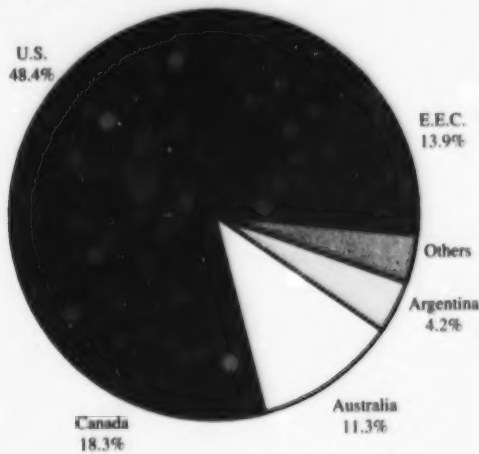
*Source: WGMP, 1996.*

that the CWB provides farmers with additional benefits, beyond the earning of price premiums. Over the 1990/91–1993/94 period, Kraft et al. (1996) showed that the adjusted risk management premium for canola was CDN \$9.38 per tonne. Flax was much higher at CDN \$17.00 per tonne, while the CWB risk management costs for wheat were only CDN \$3.85 per tonne. This directly contradicts allegations that marketing CWB grains is more costly than selling open-market grains. The Kraft et al. (1996) results are consistent with what one would expect from a marketing organization which operates on behalf of farmers.

### **MARKET SHARE**

One indication of the success of a state trading enterprise is its ability to adjust to an ever-changing world grain market. The CWB continually adjusts its sales and marketing strategies in order to maximize returns and to maintain market share. For example, in spite of U.S. export subsidies and E.U. restitution payments, Canada's market share of world grain exports has been maintained and, in certain cases, has increased. The U.S. market share for wheat was over 48 percent in 1982 (Figure 11.1). This dropped to below 30 percent in the late 1990s. Canada's export share has been relatively stable over time, varying between 15–20 percent.



**Figure 11.1 World Wheat Export Market Share, 1982**

*Source: CWB Annual Report, 1985.*

U.S. market share for wheat has declined. Further,

- The Canadian export market share for durum has increased dramatically. It was over 60 percent for 1996/97.
- Canada's malting barley export market share increased to more than 40 percent in 1994/95.
- Canada's barley export share (both feed and malting) exceeded 25 percent in 1996/97, essentially tied with two other large exporters—the European Union and Australia.
- Canada's market share exceeds U.S. market share for durum wheat, barley and malting barley.
- Unlike its competitors, the CWB has done exceptionally well in certain markets (for example, Brazil).
- Canada and Australia (both single-desk sellers) have enjoyed and will continue to enjoy large market shares. For example, in 1996/97 they had roughly 33 percent of the export market share for wheat, and 51 percent for barley. These numbers are phenomenal, especially in view of the tough subsidy competition from the United States and the European Union.

#### **INVESTMENT IN MARKET DEVELOPMENT**

The CWB has the incentive to invest in activities to develop markets for western Canadian wheat and barley because it can capture the benefits of this investment on behalf of western Canadian grain farmers. The CWB has a Market Development Department that is part of its Sales and Market Development Division. It consists of a

professional staff involved in various market development activities that range from giving guidance to plant breeders regarding the quality characteristics demanded by various markets, to working with importers of western Canadian grain in foreign countries to familiarize them with optimal processing approaches. In the CWB marketing system, the market development strategy and the sales functions are brought together. This "Team Canada" approach to marketing coordinates the efforts of the CWB, its accredited and international exporters, Canadian processors, the Canadian Grain Commission, and others to achieve a common objective. In order to capture the full value of market development, this marketing approach ensures that sales and market development initiatives adapt to the overall sales strategy and that they pay off in actual sales.

### MARKET DESTINATIONS

Theory suggests that in response to EEP, the CWB should have increased its sales of durum to the United States, and the CWB did just that. This further suggests that the CWB's marketing strategy has a sound economic basis. The growth in Canadian exports of durum to the United States is shown in Table 11.6. Prior to EEP, Canada's exports of durum to the United States were relatively small.

CWB sales change according to a given importer's willingness to pay. At one time, a major CWB customer was the Soviet Union. Because of lack of effective demand, however, the CWB greatly diminished its reliance on the former Soviet Union and

**Table 11.6 Canadian Bulk Durum Exports: Total and Percent to the United States, 1986/87–1994/95**

<i>Crop year<sup>1</sup></i>	<i>Canadian total</i>	<i>United States</i>	<i>Canadian exports to the United States</i>
	<i>1,000 tonnes</i>		<i>percent</i>
1986/87	1,957	62	3.2
1987/88	2,753	202	7.3
1988/89	2,003	186	9.3
1989/90	2,838	218	7.7
1990/91	3,224	370	11.5
1991/92	3,085	421	13.6
1992/93	2,260	404	17.9
1993/94	2,877	554	19.3
1994/95	3,997	293	7.3

<sup>1</sup>August/July crop year

expanded sales to more lucrative markets, such as Southeast Asia. In contrast, the United States still exports large quantities of grain to the former Soviet Union in the form of foreign aid, largely in an attempt to ensure privatization in that region. Grain, in this case, is an instrument of foreign policy.

### NEW LICENSED VARIETIES

More than twenty years ago, Schmitz and McCalla (1979) wrote the first paper comparing the Canada-U.S. grain-marketing systems. They provided evidence on the strengths and weaknesses of both systems. While Schmitz and McCalla (1979) found weaknesses in the U.S. system, they also found deficiencies in the Canadian system. The most important shortcoming for Canada was its primary emphasis on low-yielding, high-quality wheat varieties. This issue was raised again by Ulrich et al. (1987) and Carter (1993). Canada responded to these criticisms by introducing new medium-quality, higher yielding varieties (for example, HY320) in the late 1970s and early 1980s. Also, the issue has been raised by Carter (1993) about the overemphasis of plant research on malting barley as compared to feed barley. The bias toward malting barley, however, is not due to the CWB as is often claimed (Ulrich et al., 1986).

The type of wheat that importing countries purchase depends on the price and supply of the various classes of wheat and the characteristics of the end-use product for which the wheat is purchased. Although Canada is renowned for its hard red spring wheats and their excellent milling characteristics, the protein and gluten content are often too high and the kernels too hard to produce certain products.

As a result of breeding programs in western Canada, a triple M wheat class—medium-quality protein, medium-kernel hardness, and medium-gluten content—was developed allowing Canada to service those markets requiring medium-quality wheat. The CWB sells two classes of medium-quality wheats, Canadian Prairie Spring Red (CPSR) and Canadian Prairie Spring White (CPSW), introduced in 1985 and 1989, respectively. The CPSW varieties are suitable for making noodles and all-purpose flours, whereas the CPSR varieties are more suitable for making French-style breads, flat breads, steam breads, and crackers.

These wheats have yields between 15 percent and 18 percent higher than hard red spring wheats that are grown in the same area. In 1995/96, approximately 980,000 and 575,000 acres were seeded in the Prairies to CPSR and CPSW, respectively. Approximately 200,000 acres of a new variety of CPSW, AC Karma, was seeded in the 1996/97 crop year. The characteristics of this variety more closely meet the requirements of the Asian noodle market than do other CPSW varieties.

Since 1981, ninety-six new wheat and barley varieties were registered for use in western Canada—twenty-seven 2-row barley varieties, thirty-six 6-row barley varieties, and thirty-three wheat varieties (Table 11.7). The most common 2-row malting barley varieties, Harrington and Manley, were registered in 1981 and 1991, respectively. Harrington is used as the benchmark for all malting and feed barley yield comparisons in Saskatchewan and Alberta. Manitoba uses Argyle, a 6-row barley variety registered in 1981, as their benchmark. Within the wheat category, nine varieties are classified as high-yielding, medium-quality wheats.

**Table 11.7 Number of Registered Canadian Developed Wheat and Barley Varieties, January 1981–June 1996**

<i>Crop</i>	<i>Number registered varieties</i>
Wheat:	
Durum	05
Canadian Western Red Spring	19
Canadian Western Extra Strong	02
Canadian Prairie Spring White	02
Canadian Prairie Spring Red	05
Barley:	
2-row feed	08
2-row malting	12
2-row hulless	07
6-row feed	19
6-row malting	13
6-row hulless	04

*Source: Agriculture and Agri-Food Canada.*

Katepwa, registered in 1982, is used as the benchmark wheat variety against which yields of Canadian Western Red Spring (CWRS), Canadian Western Extra Strong (CWES), Canadian Prairie Spring White (CPSW) and Canadian Prairie Spring Red (CPSR) are measured in Saskatchewan and Manitoba. Kyle and Sceptre, registered in 1984 and 1985, are the Saskatchewan and Manitoba benchmarks for durum variety yields.

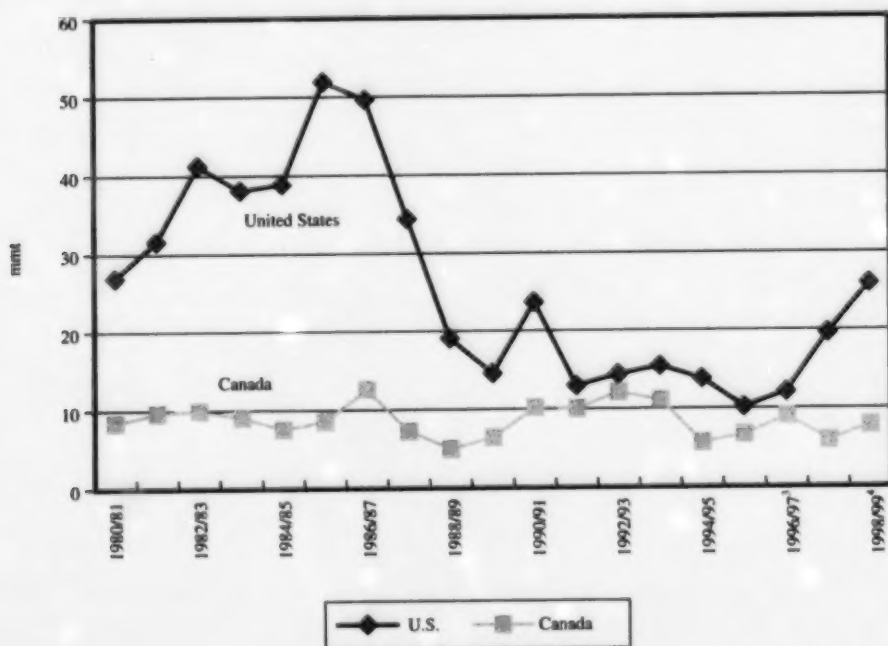
Neepawa, the Alberta wheat variety benchmark, was registered in 1969, and is the variety indicated in the Canada Grain Regulations against which hard red spring wheat quality controls are measured.

Varietal registration is not restricted to varieties developed in Canada. Many wheat and barley varieties developed in the United States, and in other countries, are used extensively in Canada. Registration of foreign-developed varieties reduces potential research costs, provides producers with a broader choice of varieties, and enhances Canada's ability to match wheat characteristics with end-user requirements. Since 1981, of the thirty-six 6-row barley varieties registered for use in western Canada, eleven have been developed in the United States. The United States grows predominantly 6-row barley. The more popular U.S. barley varieties grown on the Canadian Prairies include B1602, Excel, Robust and B1215. Oslo, a CPSR wheat variety, was also developed in the United States.

## STOCKS

In the late 1960s, Canadian wheat stocks equaled American stocks when Canada shifted from a policy of subsidized stockholding to the policy of promoting low stocks, which was known as the Lower Inventory for Tomorrow (LIFT) Program. Since 1973, however, because of the expansion of the Canadian market relative to the U.S. market, Canadian stocks have been significantly below U.S. levels. Canadian and American ending stocks of wheat are shown in Figure 11.2. This is largely a reflection of effective CWB marketing. Furthermore, Canada achieved this result without selling at prices below the U.S. loan rate, except during the 1985/86 crop year (Carter et al., 1989).

Figure 11.2 American<sup>1</sup> and Canadian<sup>2</sup> Ending Wheat Stocks, 1980/81–1998/99



<sup>1</sup> American year ends May 31.

<sup>2</sup> Canadian year ends June 30.

<sup>3</sup> 1997/98 estimated.

<sup>4</sup> 1998/99 projected.

Source: USDA, ERS Wheat Yearbook, various years.

## PRICE COMPARISONS—U.S. AND CANADA

According to Carter and Loyns (1996), the CWB performs poorly when using producer price comparisons between the United States and Canada as a criterion. McCalla and Schmitz (1979) have pointed out in earlier works that such a comparison uses only one criterion to evaluate the economic performance of the CWB, and that caution should be used when drawing inferences from cross-country price comparisons.

### WHEAT PRICE COMPARISONS

Carter and Loyns (1996) have compared American and Canadian wheat prices (Table 11.8), however, some confusion exists regarding the level of protein that was present in the wheat being compared. Carter and Loyns (1996) say that they are comparing Winnipeg No. 1 CWRS 13.5 percent protein as their Canada variety against Minot DNS 14 percent as their American variety. But Carter and Loyns' (1996) table shows data for No. 1 CWRS 13 percent protein (Table 11.8). The results indicate that Canadian prices are significantly higher for the crop years 1988/89–1990/91. Yet, when averaging all years, prices were approximately the same (CDN \$158 per tonne versus CDN \$157 per tonne). Unfortunately, no price comparisons were made for other grades of wheat or for durum wheat.

Wheat price comparisons were also made by Carter et al. (1998b); they found that the average price for 1988/89–1994/95 was almost identical in both Canada and the United States. Their findings for wheat are consistent with Furtan's findings (1995).

**Table 11.8 Comparative U.S.–Canada Farm-gate Prices for Wheat and Barley: 1989/90–1994/95**

	<i>Minot North Dakota</i>	<i>Winnipeg Manitoba</i>	<i>Great Falls Montana</i>	<i>Lethbridge Alberta</i>
	<i>DNS 14 percent</i>	<i>No. 1 CWRS 13 percent</i>	<i>Feed barley</i>	<i>No. 1 CW feed</i>
<i>Crop year</i>	<i>CDN\$ per tonne</i>			
1988/89	170	195	121	106
1989/90	141	160	107	104
1990/91	101	119	106	67
1991/92	141	119	107	84
1992/93	155	147	108	78
1993/94	211	172	115	73
1994/95	185	189	131	75
All Years	158	157	114	84

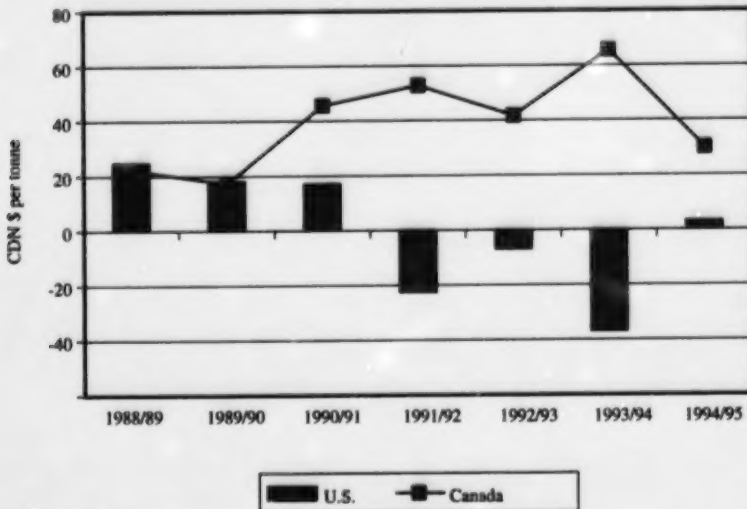
Source: Carter and Loyns, 1996, p. 60.

Furtan (1995) concludes that in aggregate, farmers in Saskatchewan and North Dakota receive similar prices for barley, durum and wheat. The grain markets are very competitive and the CWB has not been able to get a higher final price for farmers (with the possible exception of barley) given the presence of EEP in most foreign markets.

Cross-country price differences are not due solely to the CWB system. Other factors, such as EEP and transportation subsidies, must be taken into account when making price comparisons. For example, EEP had a major impact on increasing American producer prices relative to Canadian prices. EEP subsidies on wheat, for crop years 1988/89–1993/94, are shown in Figure 11.3 along with Canadian and American wheat price spreads. (Note that the two years with high EEP are 1991/92 and 1993/94.) The widest negative spread between Canadian and American wheat prices, as reported by Carter et al. (1996) is in the years 1991/92 and 1993/94: CDN \$22 per tonne and CDN \$39 per tonne, in favor of the United States. The highest EEP period, 1993/94, correlated positively with the widest Canadian-American price spread. Carter's and Loyns' (1996) claim that EEP has no impact on prices of 13.5 percent No. 1 CWRS is incorrect. Different grades of grain are priced relative to one another in the CWB system. Hence, as EEP drives down CWB wheat prices, all wheat grades and protein levels are affected. The use of export subsidies will likely continue, as evidenced by the 1996 use of export subsidies by the European Union.

The use of U.S. producer prices for cross-country price comparisons poses a significant problem. U.S. prices are biased upward, because they are unweighted. U.S. producer prices are lower than those reported in Table 11.8. For example, Neal Blue

**Figure 11.3 EEP Wheat Subsidies and American and Canadian Wheat Price Spreads**



Source: Authors' calculations.



(1996) found that, for Ohio, weighted average wheat prices received by farmers were well below posted- or street-price quotations. Blue's results for the period 1986/87–1993/94 are given in Table 11.9. Farmers received prices above the posted price (or above other published price data) for only two years. Over the entire period, the weighted average price was below the posted price by U.S. \$0.25 per bushel or approximately U.S. \$9.25 per tonne.

Parsons and Wilson (1999) estimated the difference between the Canadian price for wheat and the American price for wheat for the period 1984–96. They found that the United States had substantially higher prices at the farm level. One important reason for this price difference is the way each study accounted for EEP. Parsons and Wilson (1999) used a much lower estimate of EEP for wheat than previous studies had used (for example, Haley, 1995; and Haley and Skully, 1995). To estimate the impact that EEP had on Canadian prices, Parsons and Wilson divided the total EEP expenditure by all U.S. wheat marketed and not just that bound for EEP export markets. This results in an upward bias of U.S. wheat prices in periods when EEP was present.

**Table 11.9 Summary of Ohio Wheat Price Data, 1986/87–1993/94**

<i>Crop year</i>	<i>1986/87</i>	<i>1987/88</i>	<i>1988/89</i>	<i>1989/90</i>	<i>1990/91</i>	<i>1991/92</i>	<i>1992/93</i>	<i>1993/94</i>
<i>Average prices</i>	<i>U.S. \$</i>							
Posted price (Baldwin Data)	2.62	2.87	3.93	3.74	2.58	3.52	3.18	3.16
Prices received (Ohio Ag. Data)	2.58	2.84	3.92	3.71	2.52	3.49	3.18	3.12
Historical marketing year avg. prices (Actual prices)	2.39	2.61	3.73	3.74	2.70	2.93	3.06	2.93

*Source: Correspondence with Dr. Neal Blue.*

## **BARLEY PRICE COMPARISONS**

The Carter and Loyns (1996) price comparison for barley raises similar problems, in that the U.S. price is not a weighted average price; hence, it is biased upward. In addition, the price series used for barley at Great Falls, Montana are not quoted in *Agweek*, as Carter and Loyns (1996) suggest they are. They ignore the effect of EEP on U.S. prices which is significant (Haley et al., 1992; T. Schmitz and Koo, 1996; and T. Schmitz et al., 1998), increasing U.S. prices by at least U.S. \$10 per tonne relative to Canadian prices. Also, our work shows that EEP had a major impact. For the 1979/80–1985/86 period, the U.S. price received by barley producers was U.S. \$2.36

per bushel compared with a slightly higher price for Canadian barley (Schmitz et al., 1993). While U.S. prices include malting barley, Canadian prices do not. Malting barley makes up a larger percentage of total gross barley receipts in the United States compared with those in Canada. After EEP, Canadian prices were lower (Schmitz et al., 1993):

The mean price prior to EEP was \$2.36 U.S./bushel; with EEP, prices averaged \$2.14 U.S./tonne. This is a drop of less than 10%. On the other hand, the average price of Canadian feed barley fell from \$124.9 Cdn/tonne to \$100.38 Cdn/tonne. This represented a price drop of 20%.

If one compares 1 CW Canadian prices with #2 or Better Feed Minneapolis cash price, the situation changes even more. Between 1979/80 to 1985/86 and 1986/87 to 1990/91, the mean price dropped in the United States from \$2.12 U.S./bushel to \$1.97/bushel—a 7% drop. In the comparable period in Canada, 1 CW fell from \$124.9 Cdn/tonne to \$100.38 Cdn/tonne—a drop of roughly 22%. (66)

Over the nine-year period from 1986/87–1994/95, approximately 88 percent of all feed barley exported by the United States received EEP bonuses. The portion of EEP payments to the total value of feed barley is much larger when compared to any other commodity that has received EEP bonuses. There exists a strong statistical relationship between the monthly weighted average EEP bonus provided by the United States and the U.S./Canada cash price spread for feed barley. Before EEP was introduced into international feed barley markets, the cash price spread varied around the origin. In some months, the U.S. price was higher than the Canadian price, but in other months the Canadian price was higher. However, in almost every month after June 1986, the U.S. cash price was higher than the Canadian cash price.

Furthermore, Canada does not have as large a transportation advantage as is alleged by Carter and Loyns (1996). The Crow Benefit has been eliminated. In Great Falls, Montana, transportation costs are lower because most feed barley produced there is shipped to Idaho, a feed-deficit region. To access the Idaho market, a farmer in Lethbridge, Alberta would incur significantly higher transportation costs than would a farmer in Great Falls.

Interestingly, the prices on the Prairies would be lower than in the United States if freer trade were allowed. Transportation and close proximity to markets were major factors influencing this result (Johnson and Wilson, 1994). Carter supports most of his comments on barley on the premise of increased access to the U.S. market. However, standard trade theory suggests that Canadian prices have to be lower than American prices in order for Canadian grain to access the U.S. market.

While it is often stated that, because of the Crow subsidy, Canada had a large transportation advantage over the United States for barley and wheat, such an assertion is not true:

- Since the inception of the 1989 CUSTA, Canadian grain shipments to the western United States had to occur at full commercial freight rates, that is, not at subsidized Crow rates.
- Cheap barge transportation, not available for prairie grain producers, is used in the United States.

- A large percentage of U.S. grain is used domestically and does not incur high moving costs. For example, malting barley in the United States is generally accessed from within 200 miles of a malting barley plant. Also, U.S. wheat, on average, moves a shorter distance to port than does Canadian wheat.

In reviewing the 1996 Carter and Loynes report, one is left with the impression that, under a continental barley market without EEP or other programs, Canadian barley prices would be higher than American prices. Clearly, this need not be the case, for, as Johnson and Wilson (1994) have recently pointed out, distance to market favors U.S. barley producers over Canadian producers. Although this is discussed later, barley prices have been higher in Canada for 1997/98–1998/99, even in the absence of a CBM.

There are differences between Canadian and American farm-gate grain prices. The important factor to consider is that the price differences are not solely the responsibility of the CWB marketing inefficiencies, as claimed by Carter and Loynes (1996). Parsons and Wilson state (1999):

The net effect of the operating differences in Canadian and U.S. grain handling and transportation system performance reflects the respective efficiencies of the two marketing and grain handling and transportation systems. That is, price differences between the two countries are a reflection of the combined efficiency of their respective country collection, country handling and cleaning, long distance rail shipping, port fobbing, marketing and other related activities that are undertaken in moving grain from farm to market and export position. If both the western Canadian and U.S. grain handling and transportation systems were equally efficient, then farm prices would simply reflect differences in rail rates that favor the Canadian farmer. However, this is not the case as dynamic, competitive, regulatory and efficiency factors have also introduced price differences. (vii)

Before leaving this chapter, it is important to stress that the period of analysis can affect the type of conclusions reached regarding the efficiency of different marketing systems. We focus on barley as an illustration largely because the issue of barley pricing resurfaced with the 1998 countervail case that U.S. cattle interests brought against Canada. Barley price comparisons were made by Schmitz and Gray (1999) for submission to the U.S. Department of Commerce (Table 11.10). The data, although not contained in the Schmitz-Gray submission, show that for the 1991/92–1994/95 period, when adjusted for EEP, Great Falls, Montana, prices were slightly above Lethbridge, Alberta, prices. For the 1995/96–1998/99 period, however, the average price difference was less than CDN \$4 per tonne. However, for 1997/98 and 1998/99, Lethbridge barley prices were actually above those in Great Falls.

As a means of verification, we compared the Lethbridge barley prices as reported by the Alberta Grain Commission to prices paid by Cory Van Raay farms, which operates feedlots near Lethbridge (and which fed over 250,000 head of cattle in 1998). As is shown in Table 11.11, these prices track one another closely, suggesting that Alberta Grain Commission prices accurately reflect prices being paid in Lethbridge.

**Table 11.10 Canada-U.S. Barley Price Comparisons: 1991/92–1998/99**

<i>Great Falls, Montana, and Lethbridge, Alberta, cash market prices</i>						
<i>Crop year</i>	<i>Carter and Loynes<sup>1</sup></i>		<i>Actual<sup>2</sup></i>		<i>EEP adjusted<sup>3</sup></i> <i>(1991/92–1994/95)</i>	
	<i>Great Falls</i>	<i>Lethbridge</i>	<i>Great Falls</i>	<i>Lethbridge</i>	<i>Great Falls</i>	<i>Lethbridge</i>
<i>CDN\$ per tonne</i>						
1991/92	107	84	107.42	84.89	92.40	92.25
1992/93	108	78	108.44	95.77	92.25	103.70
1993/94	115	73	115.23	89.01	97.88	97.50
1994/95	131	75	130.89	117.21	113.15	125.91
1995/96			192.58	162.05	192.58	162.05
1996/97			143.62	136.39	143.62	136.39
1997/98			128.40	132.92	128.40	132.92
1998/99			98.46	115.86	98.46	115.86
Average 1991/92–1998/99			128.13	116.76	119.84	120.82
Average 1991/92–1994/95	115.3	77.5	115.50	96.72	98.92	104.84
Average 1995/96–1998/99			140.77	136.81	140.77	136.81

<sup>1</sup>Carter and Loynes, 1996.

<sup>2</sup>Great Falls prices, Alberta Agriculture, Food and Rural Development; Lethbridge prices, Alberta Grain Commission, various years.

<sup>3</sup>EEP adjustments for the 1991/92–1994/95 period for Great Falls and Lethbridge prices calculated using yearly exchange rates and EEP data from T. Schmitz and Koo, 1996 and T. Schmitz et al., 1998.

Source: Computed by Schmitz and Gray (1999) as background for U.S.–Canada Cattle Dispute (Case No. C-122-834, exhibit 49).

**Table 11.11 Lethbridge Barley Cash Price Series 1995/96–1998/99**

<i>Barley prices</i>			
<i>Year</i>	<i>(A) Lethbridge<sup>1</sup></i>	<i>(B) Cory Van Raay Farms<sup>2</sup></i>	<i>Difference=(A-B)</i>
	<i>CDN\$ per tonne</i>		
1995/96	162.05	163.08	-1.03
1996/97	136.39	133.24	3.15
1997/98	132.92	133.19	-0.27
1998/99	115.86	116.58	-0.72
Average 1995/96–1998/99	136.81	136.52	.28

<sup>1</sup>Lethbridge - Alberta Grain Commission.

<sup>2</sup>Cory Van Raay Farms.

Source: Computed by Schmitz and Gray, 1999.

## VALUE-ADDED

Allegations have been made against the CWB for hindering value-added activities in the prairie provinces. This section highlights the main points of the value-added issue, but is not intended to be an in-depth review. In general, the CWB has encountered difficulty in communicating its role in promoting value-added processing. This is largely due to a poorly defined concept of what it means to promote value-added.

The CWB makes the critical distinction between promoting value-added in a manner that is positive for farmers versus modifying the domestic pricing policy structure to stimulate value-added at the expense of lower farm-gate returns. Put simply, the CWB strives to encourage value-added through non-price means, but is unwilling to consider incentives that would cost farmers through reduced grain returns.

The CWB's objective is to set prices for domestic mills equal to the price structure that would be in effect in a non-CWB open North American market. Charging domestic mills too high a price, relative to the open market in the United States, would bring American wheat into Canada, or would cause the trade flow of flour, which is currently from Canada to the United States, to reverse. Domestic mills pay spot prices based on the Minneapolis cash milling market backed off to Canadian locations for transportation costs. In western Canada, these costs are equivalent to commercial freight rates to Minneapolis. In eastern Canada, prices reflect Minneapolis/Thunder Bay plus commercial rail or lake freight. This means that CWB pricing is no different than what would be expected to exist in a competitive market without the CWB.

The CWB undertakes significant efforts to promote value-added processing by providing non-price incentives. Though investment decisions for value-added are based largely on the economics of location and acquisition prices of raw material, other variables play a significant role. These include technological assistance, supply assurance, flexible farmer delivery opportunities, quality control, risk management tools, forward pricing and assistance with regulatory constraints. For example, concerning technological assistance, the CWB provides in-house technical expertise to its customers or arranges assistance through the Canadian International Grains Institute or the Grains Research Laboratory at the CGC. These services support the development of new products and production ideas and are available to processors for research and/or product development purposes. In many cases, professional technical advice is offered free of charge, while specific projects can be undertaken on a cost recovery basis.

The following provides a few examples of value-added success stories in CWB grains. Malt exports have increased steadily, reaching approximately 650,000 tonnes (barley equivalent) in 1997/98. Canada's position in world malt markets has strengthened considerably and Canadian malt export growth occurred in an international malt market which saw very little total growth overall during this time period. Also, growth in Canada's malt industry has increased its capacity to produce malt substantially, despite aggressive, subsidized competition from the European Union and the United States. A significant amount of malting capacity is located on the Prairies. Canadian mills' exports of flour and semolina to the United States have also been on a rising trend, reaching 159,000 tonnes in 1997-98. The consistently high

quality of Canadian flour has helped Canadian mills to capture a share of the U.S. flour market. From the early to the late 1990s, capacity utilization rose from approximately 70 percent to well over 90 percent, even in light of additional investment in capacity.

Recently, there has been increased interest in new generation cooperatives (NGC). A new generation cooperative is simply a closed, contract-based cooperative in which members provide an equity investment and contribute raw material (grain) to a processing plant (for instance) in proportion to their equity commitment. There is interest in testing the CWB's reluctance to promote value-added because it is unwilling to offer preferential pricing to a select group at the expense of other farmers. One such NGC is the Prairie Pasta Producers which has requested an exemption from CWB domestic pricing policy to help them set up a pasta plant. The CWB has chosen to continue to support value-adding through non-price avenues (for example, flexible delivery, stock switching) rather than through pricing incentives.

To facilitate development of such a pasta plant, the CWB initiated a stock-switching plan on October 18, 1999. Under this plan, a farmer in Lethbridge, Alberta, for example, could be an investor in an NGC in southern Saskatchewan. If the farmer is obliged to deliver 40 tonnes against his NGC shares, he or she could deliver that wheat to an elevator in Lethbridge, and the CWB would record that delivery against the shares held in the cooperative. The NGC processor, in turn, would source the same quantity and quality of grain from the local area. Earlier, the CWB offered Prairie Pasta Producers a pricing flexibility provision, whereby farmers who participated in the cooperative received full payment at delivery based on the midpoint of the pool return outlook.

## **FINAL REMARKS ON CWB PERFORMANCE**

It is important to remember that the CWB is not always successful in dealing with some of the challenges it faces. In many cases, it hasn't operated as efficiently as an ideal model might suggest. But then, where does one find an ideal model in practice? We have often searched in the economics literature for a definition of an ideal model along with its real-world counterpart. Unfortunately the search always comes up empty. The CWB has imposed certain costs on farmers. For example, Schmitz et al. (1997b) found that the lack of price arbitrage cost prairie barley producers compared to what likely would have resulted under free-market conditions. Further, the CWB itself estimated that bad performance of the grain-handling system in 1993/94 and 1996/97 cost producers some CDN \$65 million. However, many of the problems encountered were not solely the fault of the CWB. Also, as discussed later, the lack of price flexibility has been a major concern among farmers.

## **SUMMARY**

We outlined why an STE, like the CWB, can achieve price premiums above what would be achieved in either its absence, or in an environment in which the CWB was competing with other sellers of Canadian wheat, durum, and barley. We also provided



a comprehensive review of studies that have assessed the performance of the Canadian grain-marketing system and the CWB in the world grain market. We examined the price premiums realized by the CWB, ranking the performance of the Canadian grain-marketing system relative to the systems of other exporters. We compared the costs of marketing CWB grains to the costs associated with the systems of other exporters.

Many studies have shown that the CWB extracts price premiums above what would be realized if there were many competing sellers of western Canadian wheat, durum, and barley. For example, these premiums for wheat have been calculated by Kraft et al. (1996) to be in excess of CDN \$13 per tonne in a non-export subsidy environment. In an average year, these premiums inject more than CDN \$260 million per year into the western Canadian economy, which is a direct benefit to western Canadian farmers.

In the export subsidy environment which existed from 1985 through 1994, the premiums the CWB realized increased to more than CDN \$27 per tonne for wheat, which amounts to more than CDN \$550 million per year to western Canadian farmers. These results are not surprising, given the theoretical arguments presented in Chapter 4 and our assessment of the world grain industry. Additionally, the CWB achieves significant premiums on sales of high-quality durum wheat and malting barley relative to what would be achieved in a multiple-seller environment.

In addition to the price premiums, many other indicators of economic performance suggest that the CWB has been successful as a marketing agency for western Canadian farmers. The CWB has responded to the many changes that have occurred in the world grain trade in the 1980s and 1990s in the following ways:

- Canadian market shares have been maintained for wheat and increased for barley and durum.
- The CWB has been able to price differentiate between markets during periods when the United States and the European Union have used export subsidies.
- CWB sales patterns have reflected various buyers' ability to pay. For example, the CWB has shifted away from markets in the former Soviet Union and toward markets in Asia and Latin America. Also, in response to EEP, the CWB increased shipments of wheat, durum, and barley to the United States.
- Canada has responded to changing markets by introducing high-yielding wheat varieties, while maintaining the overall integrity of Canadian wheat. Since 1981, ninety-six new wheat, durum, and barley varieties have been registered for use in Canada. In addition, many of these varieties used in Canada originate from other countries.
- Aggressive marketing and market development by the CWB has been a major factor in explaining why Canadian stock levels have been well below American levels.
- The CWB has invested in market development activities that promote wheat, durum, and barley. The CWB has undertaken many new endeavors to keep abreast of new market developments and to enhance farmers' returns.

The 1996 Western Grain Marketing Panel report shows that the Canadian grain-marketing system generally outperformed the systems of other exporting countries.



For example, Canadian grain exports that are dominated by CWB grains were rated as having the highest price when compared with Canada's four largest competitors (the United States, Argentina, Australia, and the European Union). In addition, Canada rated number one in terms of intrinsic quality, cleanliness, consistency, technical support, long-term dependability of supply, and customer service. Finally, Canada was tied for top spot with Australia in efficiency of contract execution.

Finally, additional benefits are provided western Canadian farmers due to risk factors. The costs of marketing wheat compared to those associated with marketing flax and canola (open-market grains in Canada) are lower (see next chapter). Risk management premiums for canola and flax are also much higher than they are for wheat.

## NOTES

- 1 On December 31, 1991, John Labatt Ltd. and The Molson Companies Ltd. each held 19.83 percent of the shares of Canada Malting Co. Ltd. Since November 1964, these two brewing companies have agreed to purchase a minimum of 90 percent of their annual malt requirements from the Canada Malting Co. Ltd. Sales to these two shareholders are supposedly made on the same terms as sales to unrelated customers.
- 2 Interestingly, the Canada Malting Co. has, in the last five years, become the largest independent malt producer in the United States (16 percent market share) and the United Kingdom (12 percent market share) by purchasing all the assets of both the Great Western Malting Co. and Hugh Baird & Sons, Ltd.

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## CHAPTER 12

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### ALLEGED COST INEFFICIENCIES AND THE MARKETING OF FLAX AND CANOLA

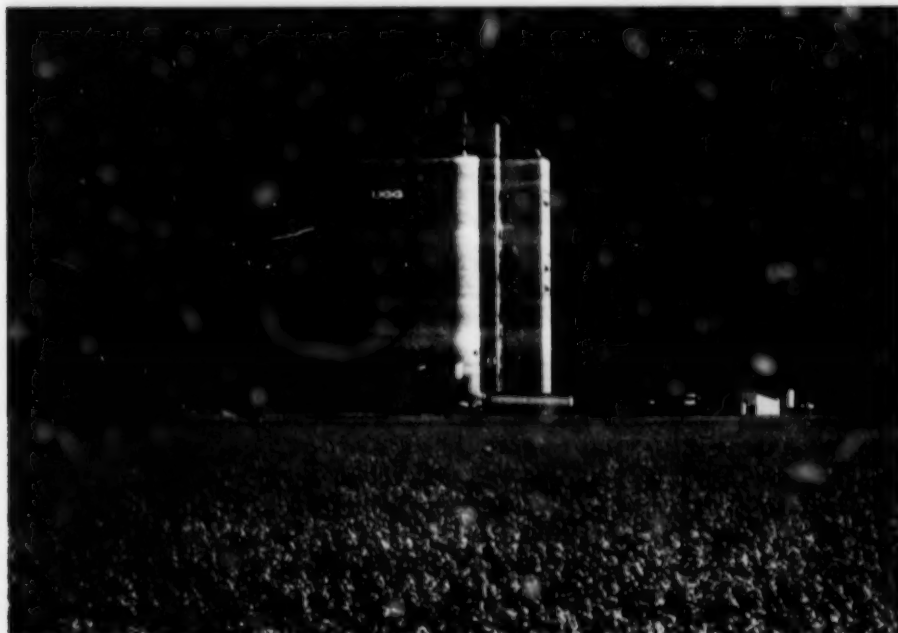


Photo by Mike Grandmaison. photo courtesy the Canadian Wheat Board.

*Non-CWB grains, such as canola, have higher marketing and risk management costs than wheat.*

*From the time grain is delivered to a Prairie country elevator until it is deposited in an ocean-going vessel, a number of marketing services are undertaken. While the services are essentially the same for wheat, barley, canola, flax and rye, the means of payment differs for wheat and barley. Neither farmers, nor the CWB, own handling or transportation facilities.... Instead these services are contracted directly. Each service performed involves a user fee.... The primary difference between the single-desk and a multiple-agent setting, is not the user fees versus imputed margins, but the nature of risk and the cost of managing risk under the two systems.*

— Kraft, Furtan and Tyrchniewicz (1996)

## COSTS: REAL OR ALLEGED?

Carter and Loyns (1996) contend that since price premiums (discussed in Chapter 11) are calculated at a port position, it is difficult to judge the performance of the CWB. In addition, they argue that the CWB does not earn significant price premiums. They argue that farm prices are the crucial measure of performance, and that the CWB is inefficient and over-regulated. This results in what they call excess fees and costs. Also, they allege that farmers are worse off under the CWB than would be the case under a proposed market of multiple sellers. According to Carter and Loyns (1996),

The CWB introduces numerous regulations and institutional arrangements throughout the marketing system.... For example, farm and grain industry decision making is subordinate to CWB decision making and often the growers and industry are responding to non-market incentives. There are few political or economic incentives for the CWB to reduce costs associated with the status quo. For instance, handling fees on Board grains are higher than they should be. In addition, the Board gives away protein to foreign buyers and sells high quality wheat for medium quality prices. (89)

### THE FACTS ON COSTS

The alleged costs presented by Carter and Loyns (1996) in Table 12.1 have not gone unchallenged. Below are several points derived from Professor Andrew Schmitz' defense witness statements (September 30, 1996) in the Archibald et al. case against Her Majesty the Queen and the Canadian Wheat Board. These points, accepted by Mr. Justice

**Table 12.1 Alleged Cost Inefficiencies of the CWB**

<i>Cost Item</i>	<i>Wheat</i>
CWB administration	\$1.80
Protein and grade giveaway	\$2.85
Delays in varietal development	\$4.00
Excess malting barley and maltster free storage	-
Excessive handling charges	\$4.00
Overages, demurrage, extra freight and port congestion	\$3.05
Excess cleaning	\$2.35
Production inefficiency	\$4.00
Delays in CWB payments	\$4.10
Taxpayer costs	\$5.50
<b>Total</b>	<b>\$31.65</b>

*Source: Carter and Loyns, 1996.*

Muldoon in his ruling (discussed in Schmitz et al., 1997), should be sufficient to illustrate that the total added costs attributed to inefficiencies brought about by the CWB are grossly overstated.

### **CWB ADMINISTRATION**

If marketing in Canada was totally private, private firms would charge for marketing services. Unfortunately, MGCs headquartered in the United States, such as the two which earn the highest profits, Cargill Inc. (Cargill) and Continental Grain Co. (Continental), do not make their marketing costs public. This makes marketing comparisons difficult, if not impossible. Thus, there is no evidence to support Carter and Loyns' (1996) assertion regarding excess marketing costs of the CWB. The evidence that is available suggests that the charge for private marketing services would be at least as high as the current administration cost of the CWB.

### **VARIETAL DEVELOPMENT**

A cost of CDN \$4 per tonne for both wheat and barley is attributed to the CWB (Table 12.1) for delays in varietal development. The CWB does have input in new varietal developments, along with the CGC and many other industry participants who are members of the Prairie Registration Recommending Committee for Grains (PRRCG). The CWB, however, does not register new varieties. Registration is done by Agriculture and Agri-Food Canada based on the recommendations of the PRRCG. For canola and other non-CWB crops, the CGC plays a similar role as it does for wheat and barley. There have been many new CWB crop varieties registered and used by prairie grain farmers, including varieties from the United States and Germany. New varieties of 2-row barley and high-yielding wheats are being used. The use and introduction of new varieties in Canada is not currently a major factor in grain production and marketing relative to other countries. At one time, however, varietal development was a major impediment to economic growth in the Prairies due to the fact the prairie grain farmers were not allowed to grow high-yielding varieties of wheat for sale through the CWB (Ulrich et al., 1987). It is important to recognize that there is a major market for Canadian high-protein wheat, even in the presence of high-yielding wheats.

Much of the evidence used by Carter and Loyns (1996) is not applicable to their case. For example, their reference to Ulrich et al. (1986) on the rates of return from investing in malting barley research is inappropriate. That study, contrary to what Carter and Loyns (1996) assert, does not focus on lack of varietal development as a major issue. Rather, it shows the influence of private sector investment in research and development on malting barley versus feed barley varieties. Also, Ulrich et al. (1986) do not attribute this influence on varietal development to the CWB. Similarly, Carter and Loyns (1996) use Ulrich et al. (1987) to show that there were costs associated with not developing and not licensing high-yielding varieties in the early years. However, unlike what Carter and Loyns (1996) allege, Ulrich et al. (1987) do not attribute these regulatory costs directly to the CWB. The results of Ulrich et al.'s (1987) work on the licensing of crop varieties had a major impact on Canada's introduction of high-yielding varieties that were introduced based on the recommendations of the PRRCG. It is also important to recognize that, once a variety is registered, it is the farmer's

decision whether to grow high-yielding wheats or some other variety. The decision is not one for the CWB to make.

### **EXCESS MALTING BARLEY CHARGES**

Carter and Loyns (1996) neither discuss how they determined the excess malting barley charges of CDN \$5.50 per tonne they attribute to the CWB, nor do they establish the time period of these charges. In addition, they provide no benchmark for comparison. Storage costs are part of any grain-marketing system. In the case of malting barley, if the farmers pay the cost of storage, they receive a higher price than if maltsters pay the storage. These costs would exist with, or without, a single-desk selling system.

### **EXCESS HANDLING CHARGES**

There is no basis for the excess handling charges of CDN \$4 per tonne alleged by Carter and Loyns (1996), because handling charges for elevator companies are established by the companies themselves and not by the CWB. Handling charges are influenced by many factors, particularly competition among elevator companies on the Prairies. There is no evidence to support the argument that, in the absence of the CWB, competition between elevator companies would increase. In fact, without the CWB controlling the time of delivery of the major crops of wheat and barley, access to the primary elevator system would be controlled by price and by fluctuating basis.

The Canadian primary elevator system must have a volume turnover of seven to nine times each year to handle the quantity of grain produced on the Prairies. Cost-controlled access to the constrained Canadian primary elevator system will result in higher costs to the farmer. Also non-Board grains in Canada are charged at least the same primary and terminal elevator-handling tariffs as are wheat and barley. For example, primary elevator tariffs reported by the CGC for the Alberta Wheat Pool in 1995/96 were CDN \$9.09 per tonne for wheat compared to CDN \$11.80 per tonne for canola.

In addition, non-Board grains have added costs because of the wide basis required by grain companies to manage risk. The basis is a market-determined value that represents the difference in value of a commodity at one location, time or form, relative to that same commodity at a different location, time or form. It is generally based upon the cost of getting/carrying a commodity from one location, time or form, to another location, time or form. When one examines basis levels on CWB grains versus non-Board grains, the non-Board grains have higher basis costs.

### **OVERAGES, SHRINKAGE AND OTHER COSTS**

Carter and Loyns (1996) allege that a cost of just over CDN \$3 per tonne can be attributed to the CWB as a result of increased overages, demurrage, freight and port congestion. They assume that these would not exist if the CWB were removed as a single-desk seller. If the Carter and Loyns assumption were correct, one would expect to see an absence of overages in canola, flax and other non-Board grains. In addition, Carter and Loyns assume that demurrage would not exist and that port congestion

would not be a problem on these grains. This is not realistic; these costs would exist regardless of whether or not grain is marketed through the CWB.

Carter and Loyns (1996) attempt to outline these costs for CWB and for non-Board grains in Canada. They suggest there are no shrinkage charges for canola, flax and other non-Board crops. As well, they suggest that these crops do not incur demurrage, marketing costs and/or carrying charges. For example, they attribute a marketing cost of CDN \$2.31 per tonne to the CWB and assume that the marketing cost for non-Board grains is zero. This is clearly not the case; these costs exist for both CWB and non-Board grains, and they would not disappear in the absence of the CWB.

### **EXCESS CLEANING**

Cleaning is a requirement placed on grain producers by the CGC to meet Canadian export standards. The CGC would likely exist even without a CWB. As a result, the costs given by Carter and Loyns (1996) for excess cleaning are not justified. Cleaning is part of the overall package which allows the CWB to command price premiums and to expand market shares. A lack of cleaning and other quality characteristics are problems in the U.S. system in which quality issues are beginning to surface. Jim Christianson (1996), of the Montana Wheat and Barley Committee, states that quality issues are becoming increasingly important in the grain trade:

The US may have the most inconsistent product of any wheat exporter in the world. Inconsistent quality is the number two problem of the US wheat industry, right behind wheat cleanliness. Part of the quality problem is because the US produces hundreds of varieties of wheat. Additionally, the US marketing system describes everything except end use quality.... Today, it does not appear that the supply of quality wheat in the US is great enough to fulfill export demands.... There should be a major emphasis on what the US produces in terms of what buyers in the world wheat market demand. The US is not knowledgeable about the needs of its buyers. (21-22)

In Canada, non-Board grains are cleaned to meet export standards, and their costs are even higher than for CWB grains. For example, the CGC reported terminal cleaning charges in 1995/96 of CDN \$3.11 per tonne for wheat compared to CDN \$4.97 per tonne for canola. In 1999, the United States began considering whether to fund or subsidize the installation of cleaning equipment at U.S. ports.

### **PRODUCTION INEFFICIENCY**

Carter and Loyns (1996) estimate aggregate production functions. They conclude from their analysis that the CWB causes production inefficiencies on the Canadian Prairies. Their analysis is flawed because of inherent measurement problems. Estimated coefficients are very sensitive to model specifications and to input measurements, and the economic significance of them is difficult to interpret. Even if there were production inefficiencies, many factors could bring them about, not the least of which would include Canadian agricultural policies.

Production function analyses cannot be applied to measure the alleged cost inefficiencies of the CWB addressed by Carter and Loyns (1996). There was a myriad



of subsidy and other programs in place over the course of the study period. As a result, Carter and Loyns cannot confirm what misallocation of resources they are measuring in their model. Based on economic modeling and analysis, to estimate aggregate production functions contained in Appendix B to the Carter and Loyns report, it appears they end up simply estimating that the alleged allocative inefficiency of the CWB system is one percent of total farm cash receipts in western Canada. This estimate is unrelated to their model.

### **DELAYS IN CWB PAYMENTS**

Carter and Loyns (1996) overstate their claim of added costs due to delays in payments. Producers of other crops, such as canola and flax, do not sell all their crops immediately after harvest. They pay storage costs and interest on the grain not delivered. Cash advances for CWB and non-CWB grains, as interest-free loans, were available under the previous Prairie Grain Advance Payments Act and are now available under the Agricultural Marketing Programs Act to help alleviate many of the farmers' cash-flow problems. In the absence of the CWB, not all wheat would be sold immediately after harvest because Canada's physical capacity for grain handling and transportation could not bear the load. Regardless of the CWB, the grain-marketing system in Canada could not accommodate a system in which producers sold and delivered all their grain in the course of a week, or even a month early in the crop year. From a marketing strategy standpoint, producers would not attempt to sell all their grain immediately after harvest, nor could they.

### **TAXPAYER COSTS**

Government policy in Canada has contributed significantly to increased farm income on the Prairies. Often, policy response has come about largely because of export dumping of grain by the European Union and the United States through their treasuries. The Canadian government would have intervened in the late 1980s and beyond regardless of whether or not the CWB existed. (There is no evidence that the CWB lobbied for farm subsidies.) Subsidies are also present for supply-managed commodities, such as eggs and broilers. Likewise, farmers who produced non-CWB grains also received government payments.

The costs to U.S. taxpayers for supporting farmers and funding farm storage are high. For example, the government pays for the cost of storage. Deficiency payments have also been significant. The USDA, on September 13, 1996, said that U.S. farmers will get U.S. \$5.3 billion in crop subsidies in fiscal 1996 under the Feed Freight Assistance Act. Payments included U.S. \$1.976 billion for wheat, U.S. \$1.77 billion for corn, U.S. \$206 million for sorghum, U.S. \$141 million for barley, U.S. \$9 million for oats, U.S. \$746 million for cotton and U.S. \$472 million for rice (*Manitoba Cooperator*, September 9, 1996, p. 1). Attaching taxpayer costs to the CWB on the levels suggested by Carter and Loyns (1996) is not warranted. Canadian taxpayers have been generous in their support of Canadian farmers, but this would have been true even if the CWB did not exist.

Carter et al. (1998) develop a theory as to why the CWB is inefficient. Claiming that the CWB fits a stylized Niskanen model of bureaucratic decision making explains,

for them, why the CWB supplies excess marketing services to farmers since these increase the marketing margins on CWB grains. Providing excess services benefits the providers of the marketing services and reduces returns to growers. Thus, according to the Carter et al. argument (1998b), the CWB garners political support from import suppliers and customers as well as secondary benefits, such as bureaucratic and political power in the grain market, on-the-job perks, and regulatory and bureaucratic control over marketing. Their contention is that the CWB intends to maximize revenues in the grain-handling market. For evidence, Carter et al. (1998) use the previous examples of wheat protein giveaways, excess handling charges and overage credits, demurrage costs, and excess cleaning and port constraints.

Their cost estimates, however, are questionable because they fail to specify the time period of analysis and the norm used for their basis of comparison. Also, the costs outlined, if they exist, result from the entire grain-regulatory framework and the market structure in Canada, not solely from CWB operations (Schmitz, 1996a, 1996b). If the CWB were dismantled, many of the costs would remain. For example, grain-handling charges are established by elevator companies themselves and not by the CWB. The CWB does not control the registration of varieties. In fact, it is the PRRCG that provides recommendations for the registration of wheat and barley varieties in western Canada. The Committee consists of industry-wide representation from the CGC, the CWB, AAFC, university researchers, plant breeders, producers, and end-users.

### **MARKETING OF FLAX AND CANOLA**

A part of the study by Kraft et al. (1996), which has largely gone unnoticed in these debates, compares the CWB's marketing costs for wheat to the marketing costs for two non-Board crops: canola and flax. Canola and flax are predominantly export-oriented crops that use the same handling and transportation facilities as wheat. So why has this study gone unnoticed? The best explanation is this: those who oppose the CWB have no interest in drawing attention to the costs of marketing non-CWB crops. The Kraft et al. (1996) study shows that there are no "free" rides in a "free" market; in fact, the CWB seems more cost-effective in many instances than appears to be the case for non-Board grains.

For example, the Kraft et al. (1996) study found risk management costs to be CDN \$17 per tonne for canola, but only CDN \$3.85 per tonne for wheat. They attribute this lower cost of risk management in wheat to the self-insurance inherent in the CWB pooling system. The CWB has provided significant savings to western Canadian producers. But such information is dismissed by those who support a free market, given the belief that the CWB has to be inefficient.

### **MARKETING COSTS**

Tables 12.2 and 12.3 show the marketing costs for wheat and for two non-Board crops: flax and canola. Data is presented in Table 12.2 for the 1989/90 crop year, while Table 12.3 presents data for the 1993/94 crop year. For wheat, the marketing costs are much lower than for flax or canola. In 1989/90, the total marketing costs for wheat were roughly CDN \$32 per tonne, while for flax and canola they were roughly CDN \$45

**Table 12.2 Canadian Wheat and Oilseeds Marketing Costs for 1989/90**

Marketing service	Crop		
	Wheat	Flax	Canola
CDN\$ per tonne			
Primary elevator & transportation			
Elevation	7.64	10.24	10.42
Dockage	2.02	4.32	4.41
Storage	1.57	1.86	1.56
Carrying cost	2.77	6.16	4.03
In-transit carrying cost	0.55	1.66	1.16
Rail	8.86	8.86	10.00
Sub-Total	23.43	33.10	31.58
Terminal elevator			
Storage	1.51	1.39	1.86
Carrying cost	2.39	3.65	3.73
Elevation	4.94	7.79	7.97
Sub-total	8.84	12.83	13.56
Total	32.25	45.93	45.14

Source: Kraft et al., 1996, p. 78.

per tonne. In 1993/94, wheat costs were roughly CDN \$33 per tonne, while for flax and canola costs approached CDN \$46 per tonne. The major difference in marketing costs between wheat and non-Board grains stems from elevation charges both at the primary and terminal elevators.

Why do these elevation charges differ? According to Kraft et al. (1996), storage time ranged from a high of 151 days for flax in a country elevator in 1980/81, to a low of fifteen days for canola in a terminal elevator in 1991/92. The average time wheat, flax and canola spent in country elevators declined from 1980–94. In the early 1980s, wheat was stored for sixty days in country elevators, but ten years later storage time was down to less than forty-five days. Flax storage dropped from approximately 100 days in the early 1980s to forty days in the 1990s. During that same period, wheat and canola averaged the same storage time in terminal elevators.

Logistically, the larger volume of wheat should allow for greater efficiencies in storage, but an offsetting factor is the larger number of grades of wheat than grades of flax and canola. The management of stocks (in terms of storage time, which has direct bearing on the carrying costs) shows the CWB to be as efficient as the agents marketing flax and canola. If anything, managers of flax inventory tended to use space for longer periods of time than did managers of wheat and canola.

**Table 12.3 Wheat and Oilseeds Marketing Costs for 1993/94**

Marketing service	Crop		
	Wheat	Flax	Canola
	CDN\$ per tonne		
Primary elevator & transportation			
Elevation	7.96	11.19	11.41
Dockage	3.10	4.89	4.97
Storage	1.71	1.45	1.35
Carrying cost	0.68	1.11	1.45
In-transit carrying cost	0.14	0.45	0.57
Rail	12.86	12.86	14.55
Sub-Total	26.46	31.95	34.30
Terminal elevator			
Storage	0.58	3.36	1.68
Carrying cost	0.47	1.99	1.41
Elevation	5.80	9.13	9.29
Sub-total	6.85	14.48	12.38
Total	33.31	46.43	46.68

Source: Kraft et al., 1996, p. 90.

Whenever a commodity does not move, the storage bill, along with an interest expense, build up. Because of their higher value per tonne, flax and canola exceed the carrying cost of wheat. During the early 1980s, the carrying costs constituted up to one-half of the combined handling, transportation and carrying costs of exporting oilseeds (Table 12.2; Table 12.3). Interest costs for oilseeds were estimated to be .5 percent above the prime interest rate; for the CWB, however, a rate of .5 percent below the prime interest rate was assumed on wheat stored in the terminal. By the 1990s, because of lower interest rates and a more rapid turnover of oilseeds, handling costs for canola surpassed carrying costs for the first time.

Because of its relatively lower value per tonne, wheat has a low carrying cost. Handling and transportation costs represent a larger share of the marketing bill for wheat than they do for flax and canola. In the case of primary elevation and dockage, these charges are collected directly from the farmer. The CWB, however, pays the grain organization for country storage and carrying costs for the period between country delivery and terminal unloading. The costs reported in Kraft et al. (1996) were those incurred by the CWB, except for terminal carrying costs. Depending upon the year and capital flows, the CWB is often able to finance the terminal carrying costs with varying

levels of borrowed funds. Since the interest costs imputed for flax and canola assume 100 percent debt financing, the carrying costs for wheat are estimated on a comparable basis. Freight rates were subsidized from 1980/81 through 1994/95, and they constituted a small share of the marketing cost realized by the shipper. (The Western Grain Transportation Act subsidy, called the Crow Rate Benefit, was eliminated in 1995.) The differential freight rates for wheat, canola and flax reflect that wheat was shipped both east and west; flax was shipped east and canola was shipped west.

The costs of marketing wheat would be higher if the CWB had to borrow from commercial banks for its credit sales, because it could not take advantage of the federal guarantee. Besides managing the receipts and disbursements of funds from the sales of wheat and barley (operations which are no different than those of any other grain company), the CWB also administers loans (disbursements and payments) under the "cash advance program" and "credit gain sales." The scope of the CWB's credit operations is very large and reached nearly CDN \$7 billion in 1993/94 (Table 12.4). The growth in loans associated with credit sales show a threefold increase from 1980/81 to 1993/94 (Table 12.4). The CWB's financial operations resemble the

**Table 12.4 Financial Records of the CWB (July 31)**

<i>Pool year</i>	<i>Credit sales</i>	<i>Ordinary operations<sup>1</sup></i>	<i>Interest charges<sup>2</sup></i>
	<i>(CDN\$)</i>		
1980/81	1,826,039,842	(149,636,389)	35,482,063
1981/82	2,446,490,182	(15,451,644)	9,736,167
1982/83	2,350,452,449	82,219,221	(18,084,165)
1983/84	3,012,037,450	150,914,705	(3,463,630)
1984/85	3,683,799,803	224,55,171	12,300,778
1985/86	3,516,739,651	367,538,849	(2,674,500)
1986/87	3,465,262,727	386,636,692	(6,375,164)
1987/88	3,581,450,757	29,342,978	(17,785,610)
1988/89	3,707,960,437	(88,352,406)	(33,651,756)
1989/90	4,648,568,719	(141,351,592)	(24,312,632)
1990/91	5,424,806,942	1,111,185,206	8,255,844
1991/92	6,213,624,154	135,258,369	(38,747,835)
1992/93	6,772,098,971	77,298,472	(61,465,661)
1993/94	6,996,544,471	(169,922,918)	(49,583,506)

<sup>1</sup>A negative value indicates fund on deposit.

<sup>2</sup>Prorated to the pool account for wheat.

Source: Kraft et al., 1996, p. 75.

activities of a commercial bank more than those of a private grain organization. The ability to underwrite loans and maintain a margin between the cost of borrowing and lending is due, partly, to the Government of Canada's guarantee that the CWB can maintain the same rating on its debt as the Government of Canada does. No other Canadian commercial entity has access to debt capital at a lower cost than does the CWB. Of course, CWB export credit operations must be competitive with commercial banks, or grain importers would obtain credit elsewhere.

While the Canadian government also guarantees loans to importers, the CWB receives no more special consideration than does any other lender seeking an export guarantee from the government. The rates importers and borrowers pay on credit sales are commercially competitive, but exceed the CWB cost of raising the money. Funds the CWB realize from the difference between raising and lending capital are available to finance daily operations. Operational cash-flow shortfalls generally occur in the first months of the crop year because sales revenues do not coincide exactly with initial payments and other operational expenses. At any point, the balance in the CWB operations account may be negative or positive. When payments from credit sales exceed disbursements, these funds are available to finance operations and reduce the overall interest cost of the CWB. In fact, for most of the years since 1980/81, interest earned by the CWB has exceeded its interest expenses and the wheat pool account was credited.

What would happen if sales were conducted in a multiple agent setting, that is, by grain companies that do not have the benefit of a government guarantee? The private grain trade would be at a disadvantage in relation to Canadian commercial banks when it came to raising capital, and their lending function would be delegated from grain companies to the banking sector. The beneficiaries of the low cost of capital currently available to the CWB are the farmers. These earnings would be transferred to commercial banks and would not be reflected in the price of wheat paid to farmers by multiple agents in a multiple-agent setting.

For farmers delivering grain to the CWB, the financial importance of the Government of Canada guarantee is that it lowers the cost of capital to the CWB. The CWB Finance Department estimated that their borrowing costs in 1995/96 would increase by CDN \$35 million to CDN \$60 million, if the pool account deficits were not underwritten by the government. The range of potential increase depends upon the assumptions relating to the money market and upon the financial circumstances of the CWB. In all likelihood, the CWB would be able to maintain its credit program; the margins, however, would be much smaller. Instead of adding value to the pool accounts, the realized interest would likely be debited as often as it would be credited. In effect, the loss of the credit guaranteed on the pool accounts would cost the CWB wheat pool account between CDN \$1 to CDN \$2 per tonne. Wheat prices to farmers under a multiple-seller environment would drop even further, because none of the profits realized from credit sales would be returned to farmers.

Carter and Loyns (1996) compute the costs only of CWB wheat marketing (Table 12.5). Table 12.6 includes the marketing costs of flax and canola (non-Board grain). Clearly, the CWB incurs lower marketing costs than canola and flax—an interesting observation indeed. Table 12.6 was submitted in the Charter Case as evidence for the



Department of Justice and was accepted in Mr. Justice Muldoon's ruling. Note that the costs presented in Table 12.6 are consistent with those given by Kraft et al. (1996). For example, West Coast shipment costs for canola and flax are more than CDN \$10 per tonne higher than shipment costs for wheat, while Carter et al. show they are lower.

**Table 12.5 Representative Handling Charges—United States and Canada: CWB and non-CWB Grains, 1995 (Carter and Loyns)**

Item:	Canada		U.S. <sup>5</sup>	
	CWB	Non-CWB	PNW <sup>6</sup>	Gulf <sup>7</sup>
	CDN\$ per tonne		CDN\$ per tonne	
Primary elevation	\$7.78 <sup>1</sup>	\$9.00–\$12.00	\$5.60	\$5.60
Dockage removal	\$3.11	\$3.00–\$4.00	\$4.15	\$4.15
Shrinkage	\$0.19	n.a. <sup>8</sup>	n.a.	n.a.
Carrying charge	\$1.79 <sup>2</sup>		\$1.03	\$1.03
Marketing	\$2.31 <sup>3</sup>		\$0.10	\$0.10
Terminal storage	\$0.61	n.a.	n.a.	n.a.
Fobbing:				
Pacific	\$7.07		\$4.00 <sup>4</sup>	
Thunder Bay	\$6.92	\$4.00–\$10.00		
Gulf				\$2.55
Transfer position storage	\$1.85			
Transfer fobbing charge	\$2.27			
Total via Pacific	\$22.86	\$16.00–\$26.00	\$14.88	
Total via St. Lawrence	\$26.83	\$16.00–\$26.00		
Total via Gulf				\$13.43

<sup>1</sup>We used the Saskatchewan tariff (it would be CDN \$9.55 in Manitoba).

<sup>2</sup>Carrying charges in country elevators.

<sup>3</sup>Interest and bank charges, plus CWB administration.

<sup>4</sup>Includes small port fees.

<sup>5</sup>CDN/US exchange rate assumed to be 1.37.

<sup>6</sup>1995/96 Minot to Portland or Seattle.

<sup>7</sup>Minot to Gulf.

<sup>8</sup>n.a. signifies not applicable.



**Table 12.6 Representative Handling Charges for CWB and Non-CWB grains, 1995-96 (Charter Case)**

Item	CWB	Non-CWB	
	Wheat	Canola	Flax
	CDN\$ per tonne		
Primary elevation	\$7.78 <sup>1</sup>	\$11.60 <sup>1</sup>	\$11.45 <sup>1</sup>
Dockage removal	\$3.11 <sup>2</sup>	\$4.97 <sup>2</sup>	\$4.89 <sup>2</sup>
Shrinkage	\$0.19 <sup>3</sup>	\$1.30 <sup>4</sup>	\$1.02 <sup>4</sup>
Carrying charge <sup>5</sup>	\$1.79 <sup>6</sup>	\$1.21 <sup>7</sup>	\$1.56 <sup>7</sup>
Marketing	\$2.31 <sup>6</sup>	\$3.80 <sup>8</sup>	\$4.28 <sup>9</sup>
Terminal storage	\$0.61 <sup>6</sup>	\$1.17 <sup>10</sup>	\$1.80 <sup>10</sup>
Fobbing			
Pacific	\$6.15 <sup>2</sup>	\$9.50 <sup>2</sup>	\$9.48 <sup>2</sup>
Thunder Bay	\$5.92 <sup>2</sup>	\$9.31 <sup>2</sup>	\$9.48 <sup>2</sup>
Transfer position storage	\$1.85 <sup>6</sup>		
Transfer fobbing charge	\$2.27 <sup>6</sup>		
Total:			
via Pacific	\$21.94	\$33.55	\$34.48
via St. Lawrence	\$25.83	\$33.36	\$34.48

<sup>1</sup> Elevation rates filed with the Canadian Grain Commission (CGC) by AgPro Grain (Saskatchewan) as of August 1, 1995.

<sup>2</sup> Dockage removal rates filed with the CGC by Saskatchewan Wheat Pool (SWP) as of August 1, 1995.

<sup>3</sup> As reported by Carter and Loyns, p. 79, maximum allowable shrinkage.

<sup>4</sup> Maximum allowable shrinkage at the primary elevator for canola and flax (0.35 percent) multiplied by the average Saskatchewan farm-gate price for canola (\$370/tonne) and flax (\$292/tonne) respectively (Source: CGC, Grain Statistics Weekly).

<sup>5</sup> Does not include interest costs.

<sup>6</sup> As reported by Carter and Loyns in Table 7.9 (p. 73).

<sup>7</sup> Average commercial storage time at the primary elevator for canola (26.8 days) and flax (36.4 days) (Source: CGC, Grain Statistics Weekly) multiplied by the primary storage tariff rate for canola (\$0.045 per tonne) and flax (\$0.044 per tonne) filed with the CGC by SWP.

<sup>8</sup> 1995-96 weighted average on farm price of canola (\$370 per tonne) for Saskatchewan (Source: CGC, Grain Statistics Weekly) multiplied by the average daily interest rate for 1995-96 (8 percent divided by 365 days) and the average number of days from time of purchase in country to time of sale at port. The average number of days from purchase to sale is based on the average commercial storage time for canola at the primary elevator (26.8 days) plus the average storage time at the terminal elevator (20.1 days). Note that this estimate of marketing costs for canola does not include in-transit time which would be in the range of 3-5 days.

<sup>9</sup> 1995-96 weighted average on farm price of flax (\$292 per tonne) for Saskatchewan (Source: CGC, Grain Statistics Weekly) multiplied by the average daily interest rate for 1995-96 (8 percent divided by 365 days) and the average number of days from time of purchase in the country to time of sale at port. The average number of days from purchase to sale is based on the average commercial storage time for flax at the primary elevator (35.4 days) plus the average storage time at the terminal elevator (31.5 days). Note that this estimate of marketing costs for flax does not include in-transit time which would be in the range of 3-5 days.

<sup>10</sup> Average commercial storage time at the terminal elevator for canola (20.1 days) and flax (31.5 days) (Source: CGC, Grain Statistics Weekly) multiplied by the terminal storage tariff rate for canola (\$0.058 per tonne) and flax (\$0.057 per tonne) filed with the CGC by SWP as of August 1, 1995.

Source: Submission before Mr. Justice Muldoon, Charter Case.

## RISK MANAGEMENT

Elevator companies manage risk when buying grain from producers. When a grain agent buys oilseeds in the country and hedges the purchase by selling a nearby futures contract, there is the option of either buying the futures contract back when ownership of the crop is transferred, or delivering the commodity to fulfill the contract. Futures contracts allow the owner of the short position (contracts that have already been sold) to meet the obligation of the forward sale by delivering the commodity. Being able to deliver canola to Vancouver, British Columbia, or flax to Thunder Bay, Ontario, is conditional upon having a hopper car for transportation. Given the limited and valuable throughput capacity in Vancouver, a hopper car might be available, on the condition that the canola is being exported promptly and not being delivered into Vancouver for indefinite storage. Uncertainty with respect to the availability of rail transportation for delivery to Vancouver or Thunder Bay increases the time grain is stored in the country. The added carrying costs, however, are already accounted for in estimates of marketing costs. Unexpected transportation delays may require rolling the futures contract over to the next delivery period.

Transaction costs incurred with every trade involve wages, commissions and market imperfections, as orders are not always filled at the time that bids or offers are made. Futures contract prices do not always move in a one-to-one relationship with in-store cash and country prices. In these instances, the owner of the grain is exposed to the possibility that the basis may become larger. Risk management involves strategies and expenditures to minimize such unforeseen costs. Because of their nature, risk management costs are less predictable than handling and storage costs.

Futures markets provide a means of shifting the risk of day-to-day price changes from relatively risk-averse individuals to those more willing to accept risk. Differences between a cash price and a futures price at the same location represent the costs incurred to carry the product (storage, interest, insurance) until the futures contract expires. This price difference between the cash and futures market is called the basis. For the same location, the basis primarily reflects carrying costs. Carrying costs change relatively slowly and the basis tends to remain constant unless the expected market conditions in the future differ from actual market conditions. In some instances the cash price exceeds the futures price because of current shortages relative to future expected supplies.

Private grain companies, in the marketing of crops such as flax and canola, add charges for risk management. These are computed as the difference between the country basis and the marketing costs reported in Tables 12.2 and 12.3. Private grain companies attribute these costs, which are passed on to the farmers, to risk management. These are the costs, for example, that farmers pay for hedging flax and canola in April at a locked-in price for delivery in the fall of the same year.

Kraft et al. (1996) calculated the basis for flax and canola (Table 12.7). The difference between the country basis and the identifiable marketing costs are the costs attributed to risk management. This cost is identified as the amount of money not accounted for in the country basis after deducting transportation, storage and handling. The variation in the risk management cost is also illustrated in Table 12.7. Both the variability and magnitude are surprising. The respective fourteen-year average

**Table 12.7 Risk Management Cost Estimated for Flax and Canola**

<i>Crop year</i>	<i>Flax</i>			<i>Canola</i>		
	<i>Weighted country basis</i>	<i>Handling and carrying cost</i>	<i>Risk management</i>	<i>Weighted country basis</i>	<i>Handling and carrying cost</i>	<i>Risk management</i>
	<i>(CDN\$ per tonne)</i>			<i>(CDN\$ per tonne)</i>		
1980/81	60	42	18	66	27	39
1981/82	51	41	10	46	30	16
1982/83	55	27	28	53	24	29
1983/84	58	30	28	40	25	15
1984/85	45	31	14	41	28	13
1985/86	33	27	6	42	26	16
1986/87	45	24	21	48	24	24
1987/88	61	25	36	50	25	25
1988/89	36	3	5	46	28	18
1989/90	39	33	6	47	32	15
1990/91	36	30	6	40	32	8
1991/92	54	31	23	44	32	12
1992/93	53	31	22	49	33	16
1993/94	45	32	13	64	34	30
Average	48	31	17	48	29	19

Source: Kraft et al., 1996, p. 69.

of CDN \$17 per tonne for flax and CDN \$19 per tonne for canola suggests that risk management is a costly operation and that grain companies require a margin of that magnitude to buy and sell oilseeds.

The average basis over the 1980/81–1993/94 period for flax and canola was the same at CDN \$48 per tonne. While the average risk charge is less for flax (CDN \$17 per tonne) than it is for canola (CDN \$19 per tonne), the variability of risk charges for those crops is greater than for wheat. For example, in 1987/88 the risk management cost for flax was CDN \$36 per tonne, while a year later it had dropped to CDN \$5 per tonne. Over the 1980/81–1993/94 period, the country basis for flax averaged CDN \$48 per tonne, while the handling, storage and carrying costs equaled CDN \$31 per tonne. The difference of CDN \$17 per tonne remains to meet the cost of merging the risks of buying and selling flax. For canola, the difference is CDN \$19 per tonne.

Risk management, in the context of the CWB pooled account for all wheat sales, has a different purpose than managing a grain company's inventory value of grain. In the case of the pool account, farmers and the Government of Canada have assumed the risk of price uncertainty. The federal government underwrites any pool account deficits while farmers accept partial payment at the time of delivery. Funds from sales that are retained by the CWB, and eventually paid to farmers when the pool account is closed, serve as a source of risk capital. While the intentions of the CWB are to maintain and

add to this residual sum of money, CWB risk capital also acts as an equity buffer whenever prices drop or costs rise. Through pooling, revenues from sales during periods of relatively higher prices, or to premium markets, are averaged with lower prices. Underwriting any deficit in the pool account effectively provides the CWB with a letter of credit which states that under no circumstances will the CWB have to concern itself with questions of liquidity or solvency when developing a sales strategy.

Risk management, to the CWB, is an all-inclusive administrative function. It involves the various activities of sales, transportation, country services, planning, finance and human resources. From 1980/81–1993/94 these costs, when prorated to the wheat pool account, ranged from a high of nearly CDN \$30 million in 1993/94 to just under CDN \$13 million in 1980/91. Besides its administrative activities, the CWB bears the costs of demurrage. Over the course of the fourteen-year analysis, the average demurrage cost was CDN \$0.32 per tonne. When revenues from wheat sales fell short of expenditures in 1985/86 and 1990/91, farmers did not bear the costs of underwriting initial payments. This is a risk management cost. Without the guarantee from the Government of Canada, the CWB would have to set aside some money every year as an allowance for deficits in the pool accounts. Over the fourteen pool accounts analyzed in the Kraft et al. (1996) study, the two shortfalls could have been offset by setting aside CDN \$2.50 per tonne of wheat sold.

A comparison of the costs claimed by grain companies for risk management of canola and flax, relative to the funds required by the CWB for the risk management of wheat, indicates that private agents required a larger risk management premium. From 1990/91–1993/94, the adjusted risk management cost for canola was CDN \$9.38 per tonne. Risk management costs for flax were much higher at CDN \$17 per tonne. The CWB risk management costs were noticeably lower at CDN \$3.85 per tonne. The differences reflect the marketing systems. In the case of the CWB, farmers and the government assume the risk of price variability. Day-to-day price risk is shared through pooling of sales revenues over the course of the year. In the case of flax and canola (that is, non-Board grains), however, the grain companies manage the price variability through the margin between their purchase and selling prices.

There is one important caveat to keep in mind when comparing risk management costs between Board and non-Board grains. As Kraft et al. (1996) noted, in the case of the CWB pool account, farmers and the Government of Canada assume the risks of price uncertainty. On the other hand, farmers can forward price canola and flax at seeding time and lock in a price with a private grain company for fall delivery. This type of "hedging" activity, however, is not directly available for wheat sold through the CWB. If the CWB were to promote an option of forward pricing of wheat prior to planting, then perhaps the risk management costs for the CWB might be higher than those suggested above. This would, of course, depend on whether or not the CWB operated two separate accounts: one for the hedged grain and one for the seasonal pooled grain. The added risk management costs would show up in the hedged grain account and not necessarily in the seasonal pool account.

When assessing the risk management costs charged by elevator companies for marketing flax and canola (as calculated by Kraft et al., 1996), it is important to keep in mind that less than 50 percent of the flax and canola is hedged by farmers on the

Winnipeg Commodity Exchange and through forward contracts with elevator companies. Many argue that actually less than 20 percent is forward contracted with elevator companies. Therefore, the cost borne by farmers, on the volume they hedge, is much larger on a per tonne basis than the average risk cost calculated by Kraft et al. (1996).

## SUMMARY

Critics have charged that, although the CWB might earn premiums on export sales, significant cost inefficiencies due to CWB marketing exist that offset any gains. These cost inefficiencies have been estimated to be approximately CDN \$30 per tonne for wheat. However, these costs are grossly overstated. For example, excess charges of CDN \$4 per tonne for handling grain, levied by the elevator companies, cannot be attributed to the CWB since it does not set grain-handling rates.

This chapter has focused on a comparison of marketing wheat versus marketing two important non-Board crops, flax and canola. The marketing costs for flax and canola are far greater than those for wheat, which includes many factors such as transportation and storage costs. In addition, risk management costs associated with the marketing of flax and canola are far greater than those associated with the marketing of wheat.

The costs of marketing flax and canola, which are two non-Board grains, are at least CDN \$10 per tonne higher than those for marketing wheat. In addition, private grain companies, when managing their risks, charge roughly CDN \$19 per tonne for canola and CDN \$17 per tonne for flax. The CWB costs are roughly CDN \$3 per tonne to CDN \$4 per tonne, recognizing, of course, that marketing risks under the CWB are absorbed by the government and the farmers. In the case of flax and canola, however, farmers can lock in a price (for at least part of their crop) prior to planting. This comes at a cost calculated as a risk management charge by grain companies and paid for by farmers. However, since only a small percentage of flax and canola is forward contracted through elevator companies, many of the risk management charges cannot be justified as a cost of providing a hedge for all the canola and flax marketed.

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## CHAPTER 13

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### MARKETING FLEXIBILITY FOR PRAIRIE PRODUCERS



Photo courtesy the Minneapolis Grain Exchange.

*One proposal by the Western Canadian Wheat Growers Association is to introduce futures trading by the CWB at the Minneapolis Grain Exchange.*

*In response to ongoing requests from producers for changes to make the CWB more flexible and responsive, the federal government commissioned.... The Western Grain Marketing Panel (WGMP).... The WGMP recommended, specifically regarding pricing flexibility, that the CWB consider cash purchases, issuing negotiable final payment certificates, and the option for farmers to price wheat through fixed price contracts and on the Minneapolis spot market for sale through the CWB. Many of these recommendations were provided for in Bill C-72, and now in Bill C-4.*

— Simonot et al. (1997)



In response to producer challenges to the CWB system in October 1994, the Canadian government commissioned the Western Grain Marketing Panel to examine western Canada's grain and oilseed marketing systems. Based on its findings, which were released in July 1996, the WGMP recommended ways to make the CWB's marketing strategies more flexible. Eventually finding their way into Bill C-4, these recommendations permit flexibility in the pricing of, and payments for, CWB grains. The WGMP also suggested that the CWB consider cash payments, issue negotiable final payment certificates, and allow farmers the option of pricing wheat through fixed price contracts on the Minneapolis spot market.

The amendments to the Canadian Wheat Board Act in Bill C-4 authorize the CWB to improve producer cash flow and to provide alternative risk management options (Simonot et al., 1997). The CWB could close pool accounts earlier; it could offer negotiable final payment certificates or pool equity cash-outs (prior to the final payment), and it could offer contracts at a fixed forward price. By closing pool accounts earlier, final payments would be distributed sooner, improving producer cash flow. Since negotiable certificates and pool cash-outs are in effect equivalent, only one of these alternatives need be implemented. The primary objective of these options is to improve cash flow. In addition, however, the price risks would be reduced for producers who opt out of the pool early or for those who receive cash for the final payment certificate. With a fixed forward-price contract, farmers are allowed to lock in operating margins and remove the risk of price fluctuations which might occur some time between seeding and the time of sale. Since the producer would receive payment in full at the time of delivery, fixed forward pricing also would improve cash flow.

An additional price flexibility option is presented below, based on the example offered by Calcot Ltd., a highly successful cooperative that markets California and Arizona cotton. The price pooling alternatives offered to producers by Calcot illustrate other possible marketing avenues available to the CWB. In addition to its seasonal pool (a rough equivalent to the CWB pool account), Calcot offers producers both a call pool and a spot-fixation program, whereby producers can hedge their cotton through Calcot on the New York Cotton Exchange (NYCE).

## **PRICE FLEXIBILITY AND THE OPTIONS FOR THE CWB**

There are several price-pooling options which the CWB could develop in order to provide producers more flexibility in the marketing of their crops (Simonot et al., 1997).

These options include:

- negotiable final payment certificates (NPCs);
- a pool equity cash-out, whereby the selling price is established by the CWB, based on the most current estimated pool return (EPR) less a discount factor;
- fixed forward-price contracts, based on the pool return outlook (PRO); and
- cash pricing at a price based on the Minneapolis spot-price market.

None of these price alternatives fit Calcot's call pool option. We will discuss the four alternatives in order, and then follow with a discussion of the applicability of Calcot's call pool system to CWB marketing operations.

### **NEGOTIABLE FINAL PAYMENT CERTIFICATES**

Under this pricing option, producers deliver their grain and receive both an initial payment and a certificate which represents the right to a share of the equity in the pool account. The grain price would be established by the marketplace. This arrangement resembles the negotiable certificate option that was used in the early years of CWB operations but was later dropped. The first CWB, formed on July 31, 1919, paid producers an initial fixed payment. It also issued a participation certificate which allowed the holder to receive an equitable share of any revenue generated by the pool; this share was paid in addition to the initial fixed payment. The certificate holder could have the certificate redeemed at any chartered bank, once interim and/or final payments were announced.

The revised Canadian Wheat Board Act of 1922 required that the balance of the proceeds for the particular pool account be distributed on a pro rata basis to all producers and to others who held participation certificates. The stipulation that individuals, other than producers, could cash participation certificates gave the original recipients of those certificates the right to transfer them to anyone. According to Wilson (1978), certificates were transferred frequently, often for much less than their full market value. This unofficial circulation occurred partly because producers were unfamiliar with the operation of the pools, and they did not realize the payment potential from final payments. Moreover, the transfer of the certificates was done privately, in the absence of a central market, and little information was disseminated to producers about the potential value of the certificates. As such, buyers often preyed upon producers, and producers lost the sizable returns they were rightfully owed.

In 1935, the Canadian Wheat Board Act was revised again, making the participation certificates nontransferable. Producers had no choice but to hold their certificates until the CWB declared a final payment. This change resulted in producers receiving millions of dollars in additional revenue (Wilson, 1978). The clause that prohibits the transfer of participation certificates remains in effect into the late 1990s.

Unterschultz and Novak (1997) conclude that negotiable certificates (which they call negotiable final payment certificates) generate benefits as well as costs. Negotiable certificates do not require the CWB to implement strategies to manage the risk associated with the pool. The only significant requirements Unterschultz and Novak (1997) note are "the administrative aspects associated with tracking NPCs and making final payouts to the correct parties. On the administrative side, the CWB or a CWB

agent would act as a clearinghouse for this market" (23). If the volume were sufficient, a market could be established for negotiable certificates. However, their success may be limited by the CWB's ability to create a viable market in which public availability of information is required, and in which the CWB is perceived as unbiased. If they were to be traded, negotiable certificates would have to be valued, which would require information on more than the PRO or EPR. Farm managers would need information on the priced portion of the pool, the portion of the expected pool that is not priced, and, perhaps, some idea about a future sales program. Will price discovery be open and transparent? Since there is uncertainty regarding their value, negotiable certificates may not be readily negotiable, and their uncertain value may detract speculators. As a result, a market will have to be created that brings together buyers and sellers of certificates, and those certificates must be easily traded.

Even though negotiable certificates were not successful in the 1930s, one should not conclude that they are unworkable now. Financial markets of the 1990s are more capable of handling more complicated types of financial instruments (like negotiable certificates), than those of the 1930s. Farmers in the 1990s are more attuned to trading on financial markets than were their 1930s counterparts. Negotiable certificates are an option that the CWB could implement so that farmers would receive their total payment for wheat when they deliver it to the elevator. Payouts for grain would not be split into initial and final installments.

#### **POOL EQUITY CASH-OUT**

Using this approach, the CWB would offer farmers the option to receive cash for their equity in the pool account at a price established by the CWB (based on the most current EPR, less a discount factor). For the farmer, this option is similar to negotiable final payment certificates. Recall though, that for any alternative payment approach offered by the CWB, farmer participation may be either high or low. Whether to take payment sooner, rather than later, (as all these programs allow) is based on the combination of producer price expectations and discount rates relative to the CWB's PRO or EPR. For example, if farmers have the option of taking payment today rather than in six months, they must compare the price offered today with the expected price in six months (reduced by their discount rate). It is then simply a matter of choosing the higher price (in present-value terms). Simonot et al. (1997) write:

To model this problem, a distribution of discount rates can be generated to represent the distribution of farmers (e.g. Prime rate with a standard deviation of 1.5 percent). A distribution of producer price expectations can also be generated (with the EPR as the mean and some standard deviation). Both the discount rate and the producer's price expectation are compared with the CWB EPR and discount rate. The producer then chooses to take cash now or stay in the pool, whichever offers the higher present value. Over successive periods, price expectations become more accurate as the final payment approaches. This can be modeled by reducing the standard deviation of the producer price expectation in each successive period. (21-22)

They contend that financial benefits arise from these programs for farmers whose discount rates are higher than those of the CWB. All producers can take advantage of

increased price flexibility, but the aggregate economic benefit arises only from those producers with a discount rate greater than that of the CWB (see Appendix 13A).

From the CWB's perspective, an important difference between the tradable fixed certificate option and the equity buy-out option is that there is no risk in the certificate option. Ultimately, there cannot be producer claims against the CWB greater than the amount of money in the pool account. However, in the equity buy-out proposal, the CWB could be exposed to significant risks. For example, in a falling market, if a large number of producers cashed out, the CWB could incur a negative balance in the pool account. Risk management strategies by the CWB become more crucial in the operation of the buy-out option than they do in the transferable certificate option.

### **FIXED FORWARD-PRICE CONTRACTS**

Using this option, producers would have the opportunity to fix a price on a portion of their expected production. This is similar to what is already available for non-Board crops through forward contracts based on the futures markets. Fixed forward-price contracts (FFPC) are primarily tools to manage price risk, since the farmer still faces production risk. The CWB would offer a FFPC in March or April for the following crop year. This price would be based on the PRO for the new crop year, less a discount for risk factors and administration costs. The FFPC would have flexible delivery opportunities compared to its non-Board equivalent. Although the producer would not be obligated to deliver grain before a specific date, the delivery would still need to occur during the crop year. A special delivery contract might be created for this purpose. If possible, the CWB could hedge against these commitments, and the contract would need to be legally binding for both the CWB and the producer.

The option of FFPCs faces larger problems than a cash-out program would with respect to risk management. There is also the potential problem that a farmer may sign up too much grain, or may suffer a total crop loss and be unable to fulfill his or her contract. Additionally, it is not clear how a contract could be set up so that it could guarantee delivery without encouraging farmers to sign up simply to gain access to such delivery. Many of the problems with the fixed forward-pricing option are discussed by Unterschultz and Novak (1997) and are summarized here:

- Unbiased forecasting by the CWB is a critical issue if the PRO is to be used as a key input. Unbiased forecasting means that, on average, the PRO and the final realized pool price are equal.
- An FFPC could be offered in February, March, April, May, or possibly in June, prior to the beginning of the crop year. Grain covered under an FFPC would not be included in further pool accounts.
- From the CWB's viewpoint, physically present grain would still be a part of the CWB pool and would be included in calculating pool payouts.
- FFPCs are forward contracts and would have properties associated with forward contracts. A forward contract is an agreement to buy or sell a clearly described asset for delivery at a specified time in the future for a specified price. (Forward contracts and futures contracts are closely related. Unlike a futures contract, however, a forward contract is not traded on an exchange.)

- One agent, the CWB, in the forward contract assumes the long position, agreeing to buy, while the other agent, the farm manager, assumes the short position, agreeing to sell. Most forward contracts are designed to lead to the physical delivery of the product. Usually, a forward contract has a single delivery date specified in the contract. Unlike a futures contract that locks in only the price, a forward contract locks in the price and the basis. A forward contract is used for hedging (that is, risk management) and is a means of price speculation. Agents can enter into forward contracts to manage price risk (that is, to hedge), to add to price risk in expectation of making a profit (that is, speculate), or to engage in a combination of the two.
- An enforceable and useable contract depends on many factors, for example, known delivery dates and specified delivery locations. The known delivery date, however, may be in conflict with deliveries under CWB pooling.

### CASH-PRICING PROGRAM

Cash pricing would allow producers to sell some of their wheat at a price based on the Minneapolis, Minnesota, spot price. The grain would still be handled by the CWB, but not in the conventional pooling manner. That is, the wheat sold through a cash-pricing program would be accounted for separately from the regular price pools. If the WGMP option is implemented, farmers could choose to deliver no more than 25 percent of their grain to the cash-pricing program.

The cash-pricing program would essentially be a dual market within the CWB and would not remove the single-desk selling status of the CWB. Thus, the CWB would not eventually disappear as might be the case in other dual-market options. According to Simonot et al. (1997), "[the CWB's disappearance] would not happen with the 25 percent constraint in place. In fact, since all grain would still be sold through the same channel, total sales revenue should not change under this program. The relevant point is that cash-pricing redistributes some of the sales revenue to those who choose the best prices" (16).

Simonot et al. (1997) modeled the cash-price option, based on prices for the 1992/93–1995/96 period. They allowed for up to 25 percent cash-priced sales, assuming that producers would choose to take the cash price whenever it was higher than the EPR. The cash price used was the Minneapolis daily spot price, minus a basis to reflect the time and the costs of moving the wheat to the Minneapolis market. They used the CWB's PRO/EPR as a basis to project the total pooled payment. A signal to price wheat on the cash market was generated whenever this basis-adjusted Minneapolis cash price was greater than the PRO/EPR. A basis range of zero to CDN \$125 per tonne at CDN \$2.50 intervals was used to determine how different basis levels would affect the pricing decision and, in turn, the total additional revenue (either a deficit in the cash-pricing account or a loss to the pool account) which could be earned by producers. When the basis is CDN \$125 per tonne or greater, the cash-pricing program, had it been in place, would never have been used in the four crop years they studied; a signal to price sales on the cash market never occurred in the model at these high basis levels (Simonot et al., 1997: 30).

Simonot et al. (1997) write that the implementation of a cash-pricing option would not only have an effect on the producers who used the program but might also



affect the pool account. Such a program would be used by a producer only when the cash price was higher than the CWB's PRO/EPR. They contend that since the cash-priced sales would be executed through the CWB, the effect of the program would be to incur an annual deficit in the cash-pricing account. If this deficit were taken from the pool account, the total pooled return would be lower. Because of the likely nature of the farmers' decisions, wheat would only be cash priced if the cash price were higher than the EPR. Technically, there would be a separate account to keep track of cash sales; however, this account would be expected to be in deficit the majority of the time since sales would be made only if the cash price were to exceed the pool return and the cash-pricing program did not increase sales revenue. Deficits might be covered with funds from the pool account. If deficits were covered this way, the remainder left in the pool account would be smaller, and the final pool return would be lower than would be the case under the current system. The effect of the cash-pricing program would be to shift the total payment line downward. Reduction in this total payment could result in the pool account incurring a deficit, if the total payment (representing the total pool return) were less than the initial payment.

To further illustrate the effect of the cash-pricing program on the pool account, Simonot et al. (1997) use a numerical example for the 1995/96 crop year. They write:

For the example, a basis of \$20 per tonne is used. The total payment for #1 CWRS 13.5 percent protein for the 1995/96 crop year was \$271.75 per tonne. The cash model results for this basis level indicate that the transfer from pool-priced sales to cash-priced sales was \$23,007,805. Additional revenue per tonne (to the average participant in the cash-pricing program) was \$7.49 and 3,072,213 tonnes of wheat were sold through cash program. Total CWB sales for the 1995/96 crop year were 12,289,000 tonnes. Thus, 25 percent of all wheat sold would have been priced through the cash-pricing program with the remaining 75 percent being priced through pooling. The effect on the pool account (assuming the cash-pricing account deficit is covered by the pool account) would have been a reduction in the total pooled payment of \$2.50 per tonne. This result of \$2.50 per tonne is determined by a simple calculation, whereby every tonne of grain sold through the cash-pricing program corresponds to three tonnes sold through the pool ( $\$7.49/3 = \$2.50$ ). Therefore, the result of the cash-pricing program on the pool account for the 1995/96 crop year would be to reduce the total pool payment from \$271.75 per tonne to \$269.25 per tonne. (32)

Simonot et al. (1997) show, however, that for an individual farmer, results will vary widely:

A farmer would lose \$249.60 (\$2.496 times 100 tonnes) compared to the current system by choosing not to participate. On average, a farmer who participates in a cash-pricing program would not gain or lose from the current system. Of the farmers who participate, one choosing the worst day would lose \$1077.13 on 100 tonnes while one choosing the best day gains \$1965.95. The cash-pricing program affects all producers whether they participate or not. It does not increase total sales revenue, it just redistributes the income. Producers who choose the best prices receive additional revenue, but this is fully at the expense of those producers who choose lower cash prices (below the final pool return) and the producers who do not participate. (33-34)

From their model (see Appendix 13B), Simonot et al. (1997) concluded that a farmer who uses the cash-pricing program could realize a gain if such a program were introduced; however, that same farmer could also realize a loss if the cash price received was lower than the total pooled payment. This could happen if the producer chose a cash price early in the crop year during a steeply rising market. While the total gains that could be realized from a cash-pricing option look small in comparison to the total value of the pool account, some farmers could realize significant gains, while others could realize substantial losses, if a cash-pricing program were put into place.

Farmers could increase their revenue, compared to revenues under the current system, if, and only if, they can consistently choose high prices. Producer gains, however, come at the expense of farmers who participate in the program but are unsuccessful in picking the highest prices. In addition, the program, by its nature, would run a deficit. If such a deficit was absorbed by the pool account, producers who did not even participate would lose. To use their analogy, the cash-pricing program analyzed by Simonot et al. (1997) "only serves to split the pie in a different manner; it does not make it a bigger pie" (42-43).

Questions still remain as to whether or not the CWB could operate efficiently under a cash-pricing dual market. Suppose there is a significant price increase over a given crop year; for example, Minneapolis futures prices on July 1 were at \$7 per bushel, more than twice what they were on January 1. Suppose further that all the farmers opted to sell 25 percent of their crop on the open market based on Minneapolis spot prices. How, then, would the CWB handle their commitments? Moreover, how would the CWB price this grain? Clearly, not all of the grain could be physically sold in the U.S. cash-price positions. Additionally, how would the CWB allocate sales between the pool account and the cash account, especially if forward sales had already been made? Would the pool account be closed temporarily to favor the cash account? And how would the transportation facilities work to accommodate the cash sales?

Other issues would have to be addressed as well. For example, when would farmers have to indicate that they wanted to exercise the 25 percent cash market? Who would set the price and time of delivery for the farmers? What if the producers didn't exercise their price option before a certain point in time? And would the grain revert back to the seasonal pool?

## **FUTURES MARKETS AND THE CALCOT OPTION**

We now return to our working example, the Calcot Ltd. system, as another potential model for CWB operations. The following discussion focuses on how Calcot uses the New York futures market for cotton along with various price-pooling arrangements to help farmers manage price risk (also see Appendix 13C).

Calcot is the largest seller and shipper of California's San Joaquin Valley acala, pima, and Arizona desert cotton. Under Calcot's seasonal pool, growers receive the initial price plus the final payment. In the call pool, producers receive cash advances prior to the futures settlement date. What about margin calls if growers are wrong on hedges they place in the call pool? Suppose that on February 15, 1998, a cotton grower places a hedge through Calcot's call pool at U.S. \$.70 per pound for five December



contracts (December New York futures), and by so doing locks in a U.S. \$.70 per pound price for cotton. On March 15, December futures increase to U.S. \$.90 per pound. If a private trader in this position only has sufficient funds deposited with a broker to cover the U.S. \$.70 hedge, that trader would have to furnish a margin call of U.S. \$.20 per pound to cover the hedge. This would not be the case, however, if the grower hedged through Calcot. If the futures market were to move against the futures position taken by the grower in the hedge, Calcot would cover the margin call on behalf of the grower. It is important to remember that Calcot is not exposed to major losses from the call pool, regardless of market changes. For example, in the above case in which the futures price rises from U.S. \$.70 to U.S. \$.90 per pound, Calcot offsets the U.S. \$.70 long futures at the delivery date by buying a futures contract in the cash market at U.S. \$.90 per pound and selling the actual cotton in the cash market at U.S. \$.90 per pound. This is not too dissimilar from a case in which Cargill Inc. might offer a Saskatchewan farmer a fixed price contract for canola prior to planting. The farmer does not sell canola on the futures market. Instead, Cargill offers a fixed price by the sale of futures. At the time of farmer delivery, Cargill will offset its futures position through the cash sale of canola along with lifting the hedge by purchasing futures or actually delivering against the futures contracts. Cargill does not buy futures to offset futures sold by farmers; it buys futures to offset futures sold by Cargill. The example, of course, assumes that Cargill does not have any open positions. In reality, whether or not grain companies are, at any given time, pure speculators, is open to question. Little evidence is available on open positions of grain companies.

Although the CWB is not highly active in the U.S. futures market, that market is still available for use by prairie grain farmers. Some farmers argue that they cannot hedge part, or all, of their expected output at the time of planting because there is no Canadian wheat futures market. However, farmers can and do use Chicago and/or Minneapolis futures indirectly. They do not, however, hedge in U.S. futures via the CWB. (Remember that in the Calcot pool, producers hedge cotton on the New York exchange via Calcot. In addition, producers physically deliver their cotton to Calcot.)

Consider the following example outlined in Table 13.1 in which a prairie grain producer, at the time of planting, carries out either the buying or selling of futures on the Minneapolis Grain Exchange. The producer expects to grow 50,000 bushels of wheat. On May 1, the producer decides to sell five December contracts at U.S. \$4 per bushel on the Minneapolis Grain Exchange, knowing that physical delivery of the wheat to the United States will not be necessary in order to offset the producer's futures position. Prices fall as the year progresses, and on December 1, 1998, wheat on the Minneapolis Grain Exchange is U.S. \$2 per bushel. The producer buys five contracts at this price to offset his or her contracts sold in May and gains U.S. \$50,000 on the Minneapolis Grain Exchange. Due to the drop in price, however, the farmer experiences a loss of U.S. \$75,000 from the 50,000 bushels sold through the CWB.

The above example has several important differences compared to the Calcot example. For the wheat example, (1) the farmer does not use the CWB to sell contracts on a futures exchange; (2) the farmer does not plan to deliver the 25,000 bushels sold in the Minneapolis market to the CWB, or into the U.S. market, to offset his or her futures position; and (3) since the farmer does not plan to deliver against his or her

**Table 13.1 Selling Futures in a Falling Market**

<i>Canadian Wheat Board</i>	<i>Minneapolis Grain Exchange</i>
<i>U.S. \$</i>	
<ul style="list-style-type: none"> <li>• May 1: Producer expects to grow 50,000 bushels for 1998. At planting time he sells December wheat forward. CWB forecast is \$4/bushel.</li> <li>• August 1: Wheat on Minneapolis Exchange falls to \$3/bushel.</li> <li>• December 1: Wheat on Exchange falls to \$2/bushel.</li> <li>• CWB average realized price is \$2.75/bushel.</li> <li>• Producer loss is \$75,000 from realized crop of 50,000 bushels, below expected price of \$4/bushel.</li> </ul>	<ul style="list-style-type: none"> <li>• May 1: Producer deposits \$10,000 with a commodity broker, then sells 5 December wheat contracts at \$4/bushel (25,000 bushels at \$4 = \$100,000).</li> <li>• August 1: Minneapolis wheat falls to \$3/bushel. Producer gains \$25,000 in futures account.</li> <li>• December 1: Minneapolis wheat falls to \$2/bushel. Producer buys 5 contracts at \$2/bushel to offset futures sales in May.</li> <li>• Producer gains \$50,000 by hedging on futures market.</li> <li>• Producer does not have to deliver against futures and does not need grain on hand.</li> </ul>
-LOSS-	-GAIN-

contract, the farmer is acting as a speculator by marketing 75,000 bushels of wheat, that is, 25,000 more than the farmer plans to grow and market through the CWB. In the Calcot case, the producer physically delivers (to Calcot) the amount Calcot hedged for the producer on the NYCE. Through Calcot, the producer is exercising a true hedge.

The example in Table 13.2 is the same as the example in Table 13.1, except that prices increase through the course of the year. In the Table 13.2 example, the producer loses money on the Minneapolis Grain Exchange but profits from CWB sales.

In the two examples above, by selling on the Minneapolis Grain Exchange, the producer does not create a win-win situation. There was a loss in one market but a gain in the other.

Now consider Table 13.3 in which the farmer buys contracts—instead of selling futures contracts—on the Minneapolis Grain Exchange. On May 1, the farmer buys five December contracts at U.S. \$4 per bushel. Assuming that the market moves against the farmer and falls to U.S. \$2 per bushel, the farmer sells five December contracts at U.S. \$2 per bushel and suffers a U.S. \$50,000 loss. Additionally, however, the farmer suffers a loss of U.S. \$75,000 on the sale of the 50,000 bushels produced and sold through the CWB. In this case, the farmer creates a lose-lose situation. In addition, by staying in the futures market, the farmer had to post several margin-call requirements.

Most farmers would have difficulty coping with the situation in the above example. Such a marketing strategy can easily lead to bankruptcy, partly because

**Table 13.2 Selling Futures in a Rising Market**

<i>Canadian Wheat Board</i>	<i>Minneapolis Grain Exchange</i>
<i>U.S. \$</i>	
<ul style="list-style-type: none"> <li>• May 1: Producer expects to grow 50,000 bushels for 1998. At planting, he sells December wheat forward.</li> <li>• CWB forecasts \$4/bushel.</li> <li>• August 1: Minneapolis wheat rises to \$5/bushel.</li> <li>• December 1: Wheat on Exchange rises to \$6/bushel.</li> <li>• CWB average realized price is \$5.25/bushel.</li> <li>• Producer gains \$62,500 from realized crop of 50,000 bushels, above expected price of \$4/bushel.</li> </ul>	<ul style="list-style-type: none"> <li>• May 1: Producer deposits \$10,000 with commodity broker, then sells 5 December wheat contracts at \$4/bushel (25,000 bushels at \$4 = \$100,000).</li> <li>• August 1: Minneapolis wheat at \$5/bushel. Producer must post margin call or liquidate. Posts margin call.</li> <li>• December 1: Producer buys 5 December wheat contracts at \$6/bushel.</li> <li>• Producer loses \$50,000 by hedging on futures market.</li> <li>• Producer does not have to physically deliver grain.</li> </ul>
-GAIN-	-LOSS-

**Table 13.3 Buying Futures in a Falling Market**

<i>Canadian Wheat Board</i>	<i>Minneapolis Grain Exchange</i>
<i>U.S. \$</i>	
<ul style="list-style-type: none"> <li>• May 1: Producer expects to grow 50,000 bushels for 1998. At planting, buys December wheat. CWB forecasts \$4/bushel.</li> <li>• August 1: Minneapolis wheat falls to \$3/bushel.</li> <li>• December 1: Wheat on the Minneapolis Exchange falls to \$2/bushel.</li> <li>• CWB average realized price is \$2.75/bushel.</li> <li>• Producer loses \$75,000 from a realized crop of 50,000 bushels, below expected price of \$4/bushel.</li> </ul>	<ul style="list-style-type: none"> <li>• May 1: Producer deposits \$10,000 with broker. Buys 5 contracts of December wheat at \$4/bushel.</li> <li>• August 1: Minneapolis wheat falls to \$3/bushel. Producers meet margin call.</li> <li>• December 1: Producer sells 5 contracts at \$2/bushel to offset his futures purchases.</li> <li>• Producer loses \$50,000.</li> <li>• Physical delivery of wheat is absent.</li> </ul>
-LOSS-	-LOSS-

farmers are marketing more wheat than they have grown. Of course, there is another side to the story. If the market had risen, then the producer would have created a win-win situation, gaining from both the Minneapolis market and CWB sales.

The above examples are presented for several reasons. They are certainly useful because prairie farmers do play the U.S. futures market. However, they cannot provide a true hedge, as in the Calcot case, or when they contract canola with the Saskatchewan Wheat Pool. For example, prairie producers selling on the U.S. futures market do not use their own products to offset their futures positions. In this sense, prairie farmers are speculating in the market, selling more wheat than they physically produce.

Consider Table 13.4 in which the CWB operates a call pool (as Calcot producers hedge through Calcot), and producers ask the CWB to hedge one-half of their output (25,000 bushels) on the Minneapolis Grain Exchange on May 1, with December futures at U.S. \$4 per bushel. This leaves the CWB with only 25,000 bushels to sell through its seasonal pool. The results for the two cases are very different (compare Tables 13.1 and 13.4). For example, in a falling market, producers gain more on the futures than they lose in the seasonal pool. However, this is not the case in Table 13.1 in which the producer markets 75,000 bushels of wheat while producing only 50,000 bushels.

Note that in Table 13.4, it is assumed that the CWB bought five contracts of December wheat on December 1 to offset its sale on May 1 of five December contracts. However, the problem is how the CWB disposes of the physical quantity of wheat, that is, the 25,000 bushels the farmer will deliver to the CWB at the Minneapolis U.S. \$2 per bushel price. If the CWB does not have any means to physically deliver wheat against its Minneapolis futures position, then it is acting as a speculator on behalf of the farmer (Tables 13.1–13.3). The CWB would be selling more wheat than it would be physically handling.

**Table 13.4 The CWB Hedging for Producers**

<i>Canadian Wheat Board</i>	<i>Minneapolis Grain Exchange</i>
<i>U.S. \$</i>	
<ul style="list-style-type: none"> <li>May 1: Producer expects 50,000 bushels for 1998. At planting, producer instructs CWB to sell half expected output via 5 December futures. CWB forecast is \$4/bushel.</li> <li>December 1: Wheat on Exchange falls to \$2/bushel. CWB average realized price is \$2.75/bushel.</li> <li>Producer loses \$31,250 from realized crop of 50,000 bushels below expected price of \$4/bushel.</li> </ul>	<ul style="list-style-type: none"> <li>May 1: CWB sells 5 December contracts on Minneapolis Grain Exchange at \$4/bushel.</li> <li>December 1: CWB buys 5 contracts on Minneapolis Grain Exchange at \$2/bushel.</li> <li>Producer gains \$50,000 from hedging via CWB on Minneapolis market.</li> </ul>
-LOSS-	-GAIN-

*Source: Authors' estimates.*

A key feature of Calcot is that farmers can participate in both the call pool and the seasonal pool. Cotton offered to the call pool is hedged (initiated by producers) by Calcot on the NYCE. However, a perfect hedge only exists if the producer does not participate in any of the pooling accounts.

In terms of the price-flexibility options discussed earlier, only the fixed forward-price contract, based on the PRO, resembles the Calcot option. However, they differ substantially in their potential to impact the pool account. Currently, farmers have fixed price contracts available for crops such as canola and flax. Farmers sign contracts with grain companies that manage risks, in certain cases via the Winnipeg Commodity Exchange (WCE). The major problem with the CWB offering fixed-price contracts prior to seeding is that the CWB is then exposed to substantial risk. This has already been discussed with reference to using the PRO as a basis for establishing a fixed-price contract. The contract pool could easily end up in a deficit situation, making it necessary for the CWB to draw on a contingency fund, take out a government loan, or draw money from the seasonal pool. However, if forward pricing were tried as a flexible price option, a rule would have to be established whereby drawing from the seasonal pool account would not be permitted.

Many producers wonder why the CWB cannot offer a forward-price contract similar to those offered by grain companies on canola and flax. Others ask: Why can't the CWB manage risks in the same manner as the grain companies (and Calcot) do by using U.S. futures markets? Why hasn't the CWB hedged wheat on the U.S. futures market within its seasonal pool? While there are no simple answers to these questions, it has been argued that the CWB cannot use the U.S. futures market as an effective tool for managing risk. To accomplish a true hedge, for example, on Minneapolis or Chicago futures, the CWB would have to physically match the sales of wheat on the U.S. market to offset its futures positions. (This type of transaction is the key to Calcot's risk management capability.) Some argue that this would be impossible because:

- Standard contracts are not available in the United States for Canadian wheat; for example, the United States could demand only wheat of U.S. origin to satisfy its futures contract specifications.
- There is a lack of liquidity on either the Minneapolis or Chicago exchanges.
- If the CWB hedged even 15 percent of prairie wheat on one of the exchanges (for example, 75 million bushels) the CWB's selling of December futures during April (when most hedges would be placed by the CWB) would depress both futures and cash prices. For example, if the CWB were to hedge 75 million bushels of wheat, this would be equivalent to 15,000 contracts. On October 22, 1998, roughly 4,100 wheat contracts were traded on the December futures in Minneapolis; 16,732 contracts were traded on the Chicago December futures.
- A problem of unfavorable basis exists because of the nature of the prairie wheat export sales.
- Since most prairie wheat is shipped to offshore and to U.S. markets, a significant amount of Canadian transportation facilities are often unavailable. As a result, the system is somewhat inflexible in getting shipments to U.S. destinations for specific wheat contract deliveries.

- The return to the price-contract account could be more than the seasonal pool because, generally, the U.S. market is a high-priced market (net of transportation costs) relative to offshore markets.
- No active U.S. futures market exists for feed or malting barley, and durum futures trading has been introduced only recently in Minneapolis.
- Under forward-price contracts, what volume could the CWB trade—while leaving a sufficient volume for the seasonal pool—to generate price premiums?

Note that the above issues apply not only to the CWB risk exposure when offering forward-price contracts, but also to the cash-pricing option and to the equity buyout option discussed earlier. For either of these three options, there is CWB risk exposure because of futures trading constraints.

## POINTS TO REMEMBER

### THE PERFECT HEDGE

If it were corporate CWB policy to introduce fixed price contracts, priced off of the U.S. futures market, several questions would have to be addressed. Calcot uses the NYCE to hedge most of the cotton in its seasonal pool, call pool, and fixation program. If the CWB were interested in eventually introducing a fixed price contract scheme, it initially could try using U.S. futures in connection with its seasonal pool. For example, the CWB might try to hedge 10 million bushels of wheat on the Minneapolis, or the Chicago exchange. But to do so as a perfect hedge, physical sales by the CWB would have to match futures positions. In so doing, the CWB could determine the problems and costs associated with futures trading. Additionally, the CWB could determine how price levels under its hedged account compare with prices in its seasonal pool account. (All the CWB's sales would be in the pooled account.) Once the many problems associated with hedging are resolved, the CWB could offer forward-pricing contracts to farmers, as Calcot does for its producers, recognizing the importance of the size limitation placed on forward price contracts. Initially, the CWB might want to offer a 15 percent hedging volume to all producers, and, if the CWB were so inclined, it could find out from private grain companies, such as Cargill, a reasonable fee it could charge to hedge grain on U.S. futures markets. Alternatively, the CWB could use its own staff to hedge this grain on the U.S. futures markets. Given that many producers would not participate in forward pricing, the overall percentage of total production actually contracted could be less than 10 percent, or between 50–60 million bushels.

Some have argued that the CWB has not extensively used U.S. futures markets for hedging purposes because it cannot carry out a perfect hedge. Suppose, for example, that the U.S. border closed and the CWB had shorted the Minneapolis futures market. In this case, the CWB would lift its hedges by buying back futures contracts. The gains and losses associated with such a buyback were documented earlier for an individual prairie wheat farmer trading on the Minneapolis Grain Exchange. At times the CWB pool account would gain, and at times it would lose, since, in these instances, the CWB would be marketing more grain than it could access from prairie farmers. The risks from events such as border closings, however, would be reflected in a risk management



fee, which is charged by private grain companies for hedging flax and canola prior to planting.

### **LIQUIDITY ON THE U.S. EXCHANGES**

Many contend that there is not sufficient liquidity in the U.S. futures market for the CWB to carry out effective hedges. In theory, this argument seems to have little support, because if more volume is added to a futures market, it should become more liquid. In practice, however, this may not be the case. The liquidity problem does not exist for Calcot partly because its volume on the NYCE is, at any given time, generally less than 5 percent of the production to be marketed. Also, in the call and fixation pools, farmers do not hedge all of their cotton on a single day immediately after the March 1 sign-up deadline. (As of November 23, 1998, open interest on the NYCE was approximately 90,000 contracts.)

Suppose that the CWB were to hedge 50 million bushels of wheat on the Chicago and/or Minneapolis exchanges beginning on March 1. If it sold the equivalent of 10,000 futures contracts on that day, it would most likely depress U.S. futures prices even if the hedges were spread out over different futures contract months. For example, on November 23, 1998, there were 133,000 open Chicago wheat contracts. The commodity funds sold between 3,000 and 4,000 contracts. December wheat futures prices fell by U.S. \$0.085 per bushel. If 10,000 contracts had been sold by the commodity funds, prices probably would have dropped by U.S. \$0.18 to U.S. \$0.20 per bushel. However, the above example assumes that the CWB sells 10,000 contracts in one day. If one uses Calcot's example, the CWB might place hedges throughout the entire marketing year, greatly reducing the liquidity problem. Calcot selectively hedges throughout the entire year. If spread over a two-month period, however, average contracts traded would be less than 2 percent of the daily trades on the Chicago futures exchange; for example, the CWB would place hedges during March and April on the following September and/or December Chicago and/or Minneapolis futures exchanges.

The question remains: if the CWB were to use both a seasonal pool and a call pool, would producers receive higher prices in the call pool? The call pool prices could be lower, and this appears to be Calcot's experience. Even so, producers may be satisfied because the call pool offers them an option to manage risks by locking in prices prior to seeding.

### **CALL AND SEASONAL POOL**

In the Calcot example, farmers who opt for the call pool can do so for their total crop. In addition, even though they have to sign up prior to March 1, they can hedge their crop (that is, fix the futures price) any time between March 1 and July 1 of the following year. The marketing period for the call pool runs for sixteen months. (For the seasonal pool, the crop year is August 1 to July 31.) In the call pool, approximately 50 percent of the expected crop is hedged on December futures; but this 50 percent is hedged evenly through the months prior to December by Calcot (with input from the farmers). Remember that the call pool is not a pooled-price arrangement; rather, for Calcot, each producer has his or her own account. Therefore, some producers will do



better than others, depending on such factors as cash flow and market information. Interestingly, there has been no limit placed on the volume of cotton that can be marketed through the call pool. It is important to emphasize that, if the producer wishes, he or she can effectively hedge his or her cotton and lock in a price prior to planting. However, as discussed earlier, a good deal of cotton is hedged after planting.

Let us assume that the CWB announces a contract price prior to planting; for example, assume a date of May 1. Because the CWB has many more producer members than Calcot does, it may want to avoid dealing with each farmer separately and might offer a kind of pooled price within the call pool. (Calcot has approximately 2,200 growers with roughly 400 producers in the call pool, accounting for approximately 25 percent of the cotton market. This makes the accounting for separate accounts much simpler than would be the case for the CWB.) Suppose the call pool target is 50 million bushels. The problem for the CWB is how to price the 50 million bushels. If it hedges 50 million bushels on May 1, when it announces the fixed price, liquidation becomes a problem. On the other hand, if the CWB announces a price on May 1, and hedges 50 million bushels over May, June, and July, the CWB is exposed to significant risks. In a falling market, the call pool account could easily run a deficit. One solution would be for the CWB to hedge 50 million bushels over a three-month period prior to May 1, and use the average, minus an estimate of the basis risk, to fix the price. Alternatively, early in the year, the CWB could lock in a price with private grain companies who would carry out the risk management activities and charge the CWB and the farmers accordingly. In other words, the grain companies would offer the CWB a fixed price for wheat prior to planting, just as they do for producers of flax and canola.

Because of these risk management costs, the average price in the call pool could well be below the price in the seasonal pool. This has been the case for Calcot, for example. Farmers have to realize that there are costs associated with hedging wheat, just as there are costs associated with hedging canola and flax. Farmers would have equal access to signing up for the 50 million bushel call pool account. Also, since the CWB would operate both the call pool and the seasonal pool account, there is no reason to believe that it would discriminate against one account in favor of another. One key feature of the Calcot operation is that it does not discriminate among accounts.

#### **OPPORTUNITY COST TO THE SEASONAL POOL ACCOUNT**

Calcot management stated that their spot-fixation option does not affect Calcot's seasonal pool account (Merlo, 1995). However, according to several observers, this is not entirely true. With reference to the CWB, the operation of a call pool alongside a seasonal pool could have a significant effect on the seasonal pool. Many of the implications were discussed earlier in the section dealing with alternative price flexibility options. For example, if sufficient volume were allowed to be traded in the call pool account, the seasonal pool account would suffer because of insufficient volume for the CWB to carry out strategic marketing (which, in the past, has returned significant premiums to farmers (Kraft et al., 1996; Schmitz et al., 1997a)). Also, if the United States is the high-price market, then prices would favor the call pool since transactions in this pool pertain to the U.S. market.

If no limits were placed on volume, the amount of wheat that would be committed to the call pool can only be a guess. Most likely, as with Calcot, many producers would not participate in the call pool program. Even so, with 20–25 percent of the cotton Calcot handles being in the call pool, one might expect upwards of 75 million to 100 million bushels of wheat to be offered to the call pool on a yearly basis.

Futures trading is a complex area of marketing and it requires highly specialized futures trading personnel. If forward-price contracts were offered via hedges on U.S. futures markets, the CWB, and several of the grain companies, would have to increase their staff to supervise the risk management trading desks.

## **SUMMARY**

This chapter has suggested a number of options that the CWB could implement to give producers greater price and marketing flexibility. The first four options suggest ways the CWB could change how it handles its annual pool. In some cases the pool would not be affected, yet, in other cases, such as contracting or fixed pricing, the pool would be affected. The final option, based on the Calcot example, is very different from the others, in that it relies on the CWB formally using the futures market to hedge farmers' grain. We do not assess whether or not the Calcot option is better or worse than the other options.

One of the major criticisms levied against the CWB is that it has not provided a forward-pricing mechanism for wheat, whereby an individual farmer can lock in a price prior to planting. (Forward pricing is a feature available for the marketing of many non-Board grains.) This chapter draws out the implications of providing Canadian producers with such an option, and it emphasizes that there may be substantial risk premium charges associated with forward pricing.

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## CHAPTER 14

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### DUAL MARKETING AND THE CWB



Photo by Stu Phillips, used by permission.

*Ken Beswick, then commissioner of the CWB, addresses pro-dual marketing supporters demonstrating in front of the CWB in Winnipeg in September 1994.*

*We now have in operation in Canada two systems which are in open conflict with each other and the fact is they cannot for long live together.*

— John McFarland,  
First CWB Chief Commissioner (1936)

*Dual marketing will ultimately not provide farmers with a choice because a dual market structure is not viable.*

— Murray Fulton,  
submission to the Charter Case (1996)

*I remember one negotiation in China. I had mentioned to my counterpart that there were some farmers in Canada wanting a dual (export) marketing system so they could purchase from either the Wheat Board or direct from agents. With a twinkle in his eye, my Chinese friend replied, "That's a good idea!"*

— Forrest Hetland (CWB Commissioner, 1985)

**T**hroughout the debate over prairie grain marketing, the CWB has maintained a consistent position that a dual market would not be a feasible option for farmers. It insists that farmers choose either a single-desk selling monopoly (the mandate of the CWB) or an open market (with no CWB). The CWB and others have argued that the CWB organization itself, and the financial benefits for producers associated with the single-desk monopoly, would not be sustainable in a dual- or open-market environment. Indeed, some claim that the introduction of a dual market will quickly spell the end of the CWB. A dual market would not remain dual for long. Murray Fulton (1996a) notes:

... the argument has increasingly been made that farmers should have a choice in how they market their grain. This choice is often presented in terms of a dual market in which the CWB continues to offer pooling while the private trade offers cash trading. The pooling options that are put forward include completely voluntary pools which farmers are free to enter or exit whenever they wish and contractual pools where farmers are required to sign a contract to remain in the pool for a required period of time. The proponents of this alternative argue that if the CWB cannot compete in this dual market then this failure is a signal the CWB is inefficient. This argument is attractive since it suggests that if the CWB is unable to compete and survive, it must be the fault of CWB management rather than an inevitable consequence of trying to operate two contradictory systems side by side. (3)

Schmitz (1996a), in his submission to the Justice Department of Canada in the Charter Case, stated that "a so-called dual market will give rise to a situation where the pooling option will disappear and only the open market will exist" (69). Schmitz (1996a) notes that a major reason for the ultimate disappearance of the CWB, if a dual market were to be implemented, is a direct function of pooling (a system whereby high and low prices throughout the crop year are averaged to give the pooled price). In a rising price market, toward the end of the crop year, farmers could opt out of the pool and sell in the spot market in which returns would be higher. Schmitz (1996a) contends, "This type of behavior would eventually erode deliveries to the pool and erode the ability of the CWB to market grain at these higher prices which would directly affect the revenue to farmers delivering to the CWB pool" (70). Without the certainty of receiving deliveries in a dual market situation, the CWB could not make forward sales, for the quantities of grain to be sourced would be unknown.

In order to provide the three key advantages of CWB marketing to prairie farmers, the CWB's statutory monopoly is fundamental. With the monopoly in place, the CWB can:

- achieve higher prices through market muscle and price discrimination among buyers;
- reduce basis risk through annual price pooling; and
- allow low-cost financing by having the federal government underwrite CWB loans.

Despite the CWB's public articulation of this economic logic, opinion polls indicate that a growing number of prairie farmers want a dual market, especially for grain sales to the United States. At the same time, however, a minority of prairie farmers wish to see the complete elimination of the CWB. Farmers, academics and others who want a dual market see the CWB as rigid and bureaucratic in its refusal to consider dual marketing as a viable option. The CWB, in turn, sees these farmers and academics (those in favor of a dual market) as misguided, and perhaps misinformed, for they fail to grasp the simple economic logic of monopoly pricing. Many farmers seem to believe that the CWB is big enough, secure enough and, perhaps, smart enough to figure out how to make a dual market work. Moreover, it is widely believed, despite the facts to the contrary, that the government's short-lived continental barley market in 1993 demonstrated the success of dual marketing.

## DUAL MARKETING DEFINED

Under the existing CWB system, producers who sell their grain for export, or for domestic human consumption, must market through the CWB pool account. Requiring farmers to market their grain through the CWB is often referred to as compulsory marketing. Under a dual market, compulsory marketing through the CWB would no longer be required. Dual marketing is a system in which producers could deliver their grain for a given crop year (with one exception, to be discussed later), to either the CWB pooled price market or to a cash market. The cash market and the pooled price market would operate side by side. Private trade would compete with the CWB to attract grain deliveries from growers and to make grain sales.

Introduced in 1974, there now exists a dual market for feed barley grown in the prairie region. Prairie producers can, and do, sell barley to both the CWB and directly to the domestic feed industry. From a marketing perspective, the domestic feed barley market is an open market with almost no CWB involvement. The export market, however, is exclusive to CWB sales. They are two distinct markets operating differently, yet both buy from the same producers. The short-lived 1993 continental barley market was an expanded dual market. Farmers and grain companies had the option of marketing their barley directly to the United States, thus bypassing the CWB.

In the debate on dual marketing, it is imperative to make clear distinctions between types of dual marketing. (1) Some propose a voluntary dual market (VDM) whereby producers have the option of marketing some or all of their grain to the CWB, or to the open market, in any given year (Fulton, 1996a, calls this a voluntary pool). It would be almost impossible, however, to operate a VDM. (2) Dual marketing can also occur within the CWB system itself. The CWB could offer farmers the choice between a pooled return or a cash price. (3) There is also a contractual dual-marketing option, in which producers would sign contracts to market their grain exclusively to the CWB.

Numerous farmers have acknowledged that a VDM is not feasible; however, some are willing to consider other forms of dual marketing. For example, the Western Grain Marketing Panel recommended a cash-pricing option that would allow farmers to price up to 25 percent of their wheat based on the Minneapolis spot market for sale through the CWB. Such an arrangement would fall into the category of a dual market within the CWB system. If such a system were adopted, it would be similar to the Calcot system discussed in Chapter 13. Under the Calcot system, producers who belong to Calcot can market their cotton into either the seasonal pool or into the cash account. Calcot, in turn, can provide a cash settlement upon delivery of the cotton for those growers who decide not to enter into the seasonal pool.

Some producers contend that a contractual dual-marketing system for prairie grain would be workable, as long as producers could not legally flip-flop between the CWB and the open market. The key issue that would determine the viability of a contractual pool or contractual dual market is whether or not contracts could be made sufficiently specific (in terms of quantity and time of delivery), and whether or not those contracts could be effectively enforced to prevent the free-rider problem discussed below. There is also debate as to the length of contract needed to make a contractual dual-marketing system viable. Some contend that it would be nearly impossible to operate such a system based on short-term (one year) contracts. Others (such as the Ontario Wheat Producers Marketing Board in 1997) have proposed longer term contracts (five years, for example). Groenewegen (1997) called this a Declared Off-Board Marketing System. Prior to harvest, producers would have to declare the system they would use to market their grain—either the CWB or the open market (that is, off-Board). As in a VDM, the contractual dual-marketing, or Declared Off-Board Marketing System, requires that the CWB compete with the open market for producers' grain.

There are several kinds of contracts possible under a contractual dual-marketing system: (1) one type requires producers to agree to market a certain percentage of their expected output to the CWB at the beginning of the crop year; (2) another type requires the CWB to specify a minimum amount of deliveries that producers would have to make to the CWB; (3) a third type would have producers agree to contract all of their output with the CWB.

The scope and the definition of a dual market are separate issues. The scope of dual marketing depends on which commodities, and into which markets, the CWB and the private sector could trade. The narrowest scope a dual market might cover would involve only direct domestic sales by producers, private traders, and the CWB for specific commodities (as is the case in 1999 for feed barley). The widest scope would allow marketing by both the CWB and the private sector into all markets for all commodities.

## **THEORETICAL AND CONCEPTUAL ISSUES**

### **GAME THEORETIC APPROACH**

Lavoie (1996), in her work on voluntary dual marketing, used a number of theoretical models, all of which demonstrated the same result: the CWB cannot



operate in a dual market over the long term. Lavoie used game theory to predict how individuals would make decisions when selling to a price pool or to a cash market and how, in turn, their decisions would affect pooled price, revenue received, and quantity delivered to the price pool. In her model, producers had to decide how much grain to sell, and into which market they would sell (price pool or cash market). The cash price was known at the beginning of each period, but the final price was known only at the end of the crop year, because it depended on the patterns of deliveries to the price pool during the crop year. In the model, producers could only sell a quantity that would be equal to the fixed amount of grain that they would have had on hand.

In the simplest form of the game, there would be two players X and Y. Each player would have to deliver one unit of commodity per period for two periods. There would be both low-price and high-price periods. During the first period, individuals X and Y would each have two possible options: deliver to the cash market or to the price-pool market. The possible decision combinations are shown in Figure 14.1.

**Figure 14.1** Combinations of Possible Decisions by Individuals X and Y

		<i>Individual Y</i>	
		<i>Cash</i>	<i>Pool</i>
<i>Individual X</i>	<i>Cash</i>	(Cash, Cash)	(Cash, Pool)
	<i>Pool</i>	(Pool, Cash)	(Pool, Pool)

(X, Y)

Source: Lavoie, 1996.

The game is played for period 1 when the price is high, and again for period 1 when the price is low. Based on the model, the pool receives no deliveries in period 1. In period 2, producers are indifferent in terms of whether to sell to the cash market or to the price pool. Within the framework, fixed deliveries to the price pool could vary between 25 percent and 50 percent of the total deliveries. Lavoie (1996) states that with variable deliveries, the range of possible market shares of the price pool is larger than it is for fixed deliveries (0 percent to 50 percent versus 25 percent to 50 percent). Lavoie points out, however, that in both scenarios, the price pool does not receive more than 50 percent of the deliveries for the year. Moreover, most of the deliveries to the price pool occur during low prices, which result in a low pool price (47).

### COMPULSORY POOLING APPROACH

In many ways the CWB system of compulsory pooling among producers is akin to cross-subsidization within a marketing firm or to a coalition of producers. Lavoie (1996) states that within this framework:

... pooling imposes a specific allocation of costs and benefits which is the same for all participants. Using pooling as the cost allocation rule reduces the possibility of survival of a grand coalition without barriers to entry. In fact, coalition members will voluntarily accept cost pooling only if the economies of scope/size are such that the average cost to the grand coalition is smaller than the average cost any sub-coalition can guarantee itself. Fewer economies of scope/size require a different allocation to different participants, which is not typical of pooling practices. Sexton (1986) puts it differently by saying that "no single-cooperative core solution exists beyond the minimum of AC (average cost) under pure patronage financing" (220). "Pure patronage financing" means that players share cost equally. Quiggen et al. (1994) further remark that "the existence of legal barriers to entry suggests that some services have a stand-alone cost lower than the pooled price." (54)

The economies of scale for a VDM must be such that the grand coalition would have a cost advantage over any sub-coalition. Also, the economies of scale must be such that they also would offset the difference between the expected pooled price and the highest market price. At any point in time, if the market price is higher than the EPR, individuals would be tempted to get out of the coalition to obtain the higher market price (and would do so unless prevented by some barrier). The sustainability of a VDM, without barriers to high-priced markets, would depend on the level of economies of scale and on the variability of market prices within a given period.

Hammonds' (1976) findings appeared to confirm the need for large economies of scope/size in order for a dual-market system to be voluntary and effective. Hammonds (1976) emphasized that combining large volumes of a commodity from different producers would not be enough to sustain the VDM—a special advantage for the marketing agency or coalition would also be needed. This special advantage must be beyond the reach of individuals and must differentiate the marketing of raw products from other marketing opportunities. Special advantages would effectively serve as barriers to individual marketing outside the coalition.

### COMMON PROPERTY, OPEN ACCESS RESOURCES, AND POOLING

Compulsory marketing (that is, price pooling protected by entry barriers) can be conceptualized as a common property resource. In the Canadian grain industry, the producers who have property rights are those who hold a CWB permit book. Those producers are, therefore, entitled to deliver wheat and barley to the CWB account, and they are entitled to receive a share of the revenue that is collected from the selling activities of the CWB. In addition, when it comes to pooling, the revenue obtained by the CWB belongs to all its producers. If, as Vercammen et al. (1995) contend, individual producers were to view the CWB's markets as common property, they would agree that the benefit from those markets should be shared among all producers. Disagreement over the CWB's single-desk selling may come from individuals rejecting the view of the CWB as common property. Instead, some might argue that a specific

market is not common property, but rather, it is individual property, from which all benefits should be collected by individuals, not by any board, agency or coalition (Vercammen et al., 1995).

If the price-pooling institution were not common property, and if compulsory marketing were transformed into voluntary dual marketing (that is, if the legal barrier to entry were removed), then the price-pooling institution (such as the CWB) could be conceptualized as an open-access resource to which free entry and exit would be granted. As with any open-access resource, a VDM would face the problem of free-riding, as well as the problem of quality deterioration. These problems would be predominant during periods of falling prices, during which the pool would be accessible as producers attempted to benefit from cross-subsidization. (Price pooling would result in the cross-subsidizing of low-price periods by high-price periods.) Producers who delivered during periods of low prices would ride free on producers who marketed through the price pool when prices were higher. Deterioration of the pool price would ensue due to the entry of producers during periods of low prices.

To be sustainable, a VDM must be able to offer prices that make the exit of individuals to other markets unattractive. A dual market may be unable to accomplish such a feat for a number of reasons: (1) small economies of scope/size; (2) the dynamic nature of marketing decisions; and (3) bounded/limited rationality. But would an individual, who is confronted with a higher price in the cash market in fact choose to exit the price pool? Or, could an institutional rule be established to prevent producers from exiting the price pool? And further, could an institutional rule be established that would prevent entry into the price pool if the cash price were lower than the pool price?

## **DUAL MARKETING OF CANADIAN GRAIN**

### **THE CASE OF FEED BARLEY**

In 1974, a feed grain policy was put into place to allow feed grains to be marketed through the open market as well as through the CWB. This policy essentially brought about a form of dual marketing in feed grains. Except for transportation and marketing costs, the objectives of the program were to equalize feed grain prices across Canada and to be competitive with U.S. corn prices in eastern Canada. Prior to 1974, western Canadian producers had the option of (1) selling their feed grain to a feed mill; (2) selling it intraprovincially to a livestock producer who would feed the grain to his or her own livestock; or (3) delivering it to the CWB. With the dual-market policy of 1974, producers could sell their grain directly to an elevator company for subsequent resale within the domestic market. They could also load producer cars for the direct sale of their grain on their own account. In this type of dual market, the producers had the choice of selling either to the CWB or to the domestic (cash) market. Producers faced two different prices: a price based on the combined initial and final CWB payments, and a daily off-Board (street) price. The latter was a function of local feed supply and demand (Storey et al., 1984).

Storey and Kulshreshtha (1981) examined the performance of the 1974 dual market. Their evaluation was based on an econometric model of the Canadian feed

grain market. They assumed that the trend and pattern of feed prices and of price expectations during a given crop year affected producers' marketing decisions when they chose between shipping their grain to the CWB, or selling their grain off-Board. In their analysis, Storey and Kulshreshtha (1981) divided price trends into two categories: increasing market prices and decreasing market prices. When producers forecast rising prices, they would sell into the cash market once the cash price was above the EPR. Alternatively, when producers forecast falling prices, they would sell their grain to the CWB once the cash price was below the EPR. This pattern of delivery would jeopardize the ability of the CWB to meet sales commitments and to undertake additional sales.

A 1990 grain industry panel (Ewins, 1993) agreed with the conclusions drawn by Storey and Kulshreshtha (1981). The panel concluded that the combination of voluntary dual marketing and price pooling was incompatible for CWB grains. They stated that all pressure for sales outside the CWB system would take place in periods when the grain market was at a premium compared to the EPR. This would result in a decrease in the volume of grain that the CWB would have available during these premium time periods. Losses would be particularly dramatic in a rising market and would always be in one direction: out of the CWB pool account. Fulton and Vercammen (1996), in their submission to the Grain Marketing Review Panel, also agreed with Storey and Kulshreshtha (1981) regarding the downward pressure on the pooled price and the consequent difficulty for the CWB in attracting deliveries during certain periods. Fulton and Vercammen (1996), who defined a VDM as one in which a CWB pooled-pricing mechanism would operate alongside an open-market system, reached the strong conclusion that such a dual-market system would not be feasible.

Fulton (1996a), who provided written submission as a defense expert in the Charter Case, made arguments that followed along the lines of those made by Fulton and Vercammen (1996). Fulton (1996a) stated:

... dual marketing will not provide farmers with a choice, since a pooling [voluntary dual market] system cannot effectively operate alongside a cash market system. Instead, attempts to introduce a dual marketing system will either lead to relatively small volumes being pooled or to substantial losses in the pool. As a consequence farmers will not have the choice of selling either on a pooling basis or on a cash market basis. The pooling option will disappear and only the open market option will exist. (1)

Using computer simulations to evaluate the viability of a VDM, Fulton (1996a) found that: the VDM could not expect to maintain a 50 percent market share; and, there is a large variation in market share (for example, the VDM market share would be expected to be less than 25 percent for more than a quarter of the time).

Also, Fulton (1996a) noted that pool price forecasting does not necessarily improve the viability of the pool:

In summary, the operation of a cash market alongside a voluntary pool with no price guarantee will often lead to a downward spiral of the pooled price to the point where no one will want to sell to the pool. Alternatively, the presence of a pool price guarantee can lead to substantial deliveries to the pool, but with the result that the pool account is in arrears. Thus, giving producers the choice between a cash market and

a pooled price often leads to the pool being unsuccessful. This lack of success has nothing to do with the management of the pool. Rather, the lack of success derives from the fundamental incompatibility of a cash system and a pooling system. (6-7)

### **THE ONTARIO WHEAT PRODUCERS MARKET BOARD (OWPMB) PROPOSAL FOR A DUAL MARKET**

One very recent study on dual marketing was conducted by Groenewegen (1997) for the OWPMB. The OWPMB is a compulsory marketing board for wheat grown and marketed in Ontario. This board obtained its marketing monopoly after a vote by Ontario producers. In 1997, the OWPMB examined what would happen to producer returns if it gave up its single-desk monopoly and went to some form of dual marketing. Groenewegen (1997) contends that the story of the OWPMB and its economic benefits for Ontario wheat needs to be communicated.

The OWPMB has initiated significant changes in its marketing and pricing program. Producers wanted improved cash flow when marketing wheat and they wanted more price information regarding the wheat crop. The OWPMB believes that trading agency marketing (and benefits) can exist without all wheat being placed in the price pools. The removal of trading agency powers, or having more than one seller of Ontario wheat into domestic markets, would eliminate the higher returns that Ontario wheat growers would receive from the domestic processing market. The OWPMB has proven that it can offer more pricing options to growers, and it can address pricing flexibility concerns. A dual market with voluntary pooling will lead to the demise of the OWPMB, and though a dual market with contractual pooling may, with some difficulty, work, there would be a cost (due to enforcement and free-riding) to the wheat producers. Groenewegen's report was submitted to the OWPMB in 1998, but as of May 1999 it had not been acted upon by the OWPMB.

## **DUAL MARKETS: PROSPECTS FOR SUCCESS AND FAILURE**

### **THE VOLUNTARY DUAL MARKET (1935 TO 1943)**

The CWB operated a dual market from 1935-1943. This first experiment with dual marketing was not successful. (The dual market that was introduced for feed barley in 1974 has also been fraught with difficulties.) The CWB Bill that was introduced on June 10, 1935, was amended on July 23, 1935 to provide for a voluntary CWB with certain compulsory clauses that would come into effect upon proclamation by the Governor in Council (Lavoie, 1996). With this amendment, the CWB was to purchase wheat from western Canadian producers at a fixed initial payment and then issue participation certificates that entitled the CWB producers to receive a share of any surplus beyond the initial payment. According to Wilson (1978), the CWB had the duty of selling wheat "for such price as it may consider reasonable, with the object of promoting the sale and use of Canadian wheat in world markets" (474).

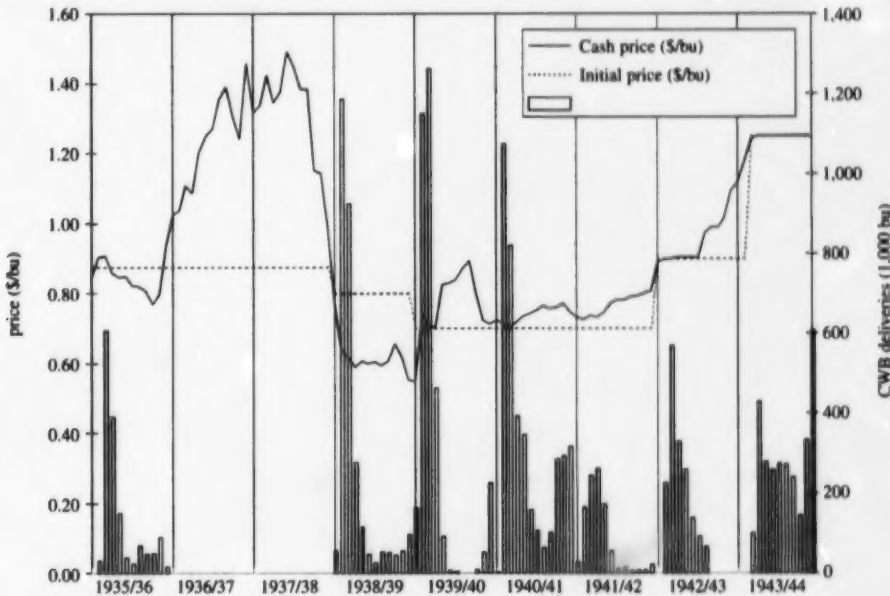
In the first year of its dual market operation (1935/36), the CWB set an initial payment of CDN \$0.875 per bushel for No. 1 Northern wheat. The CWB started receiving deliveries on September 25, 1935 (Figure 14.2). The market price was above

the initial payment in September and October. For most of the rest of the year, the cash price was below the CWB initial payment price, and the CWB received most of the deliveries. When the prices rose above the initial price in July 1936, however, the CWB received only 38 percent of the deliveries for that month. For the 1935/36 crop year, the market share of the CWB was 70 percent. The purchase of grain at the initial payment led to a loss for the CWB of CDN \$11,858,104.

In the following two crop years (1936/37 and 1937/38) the same initial payment of CDN \$0.875 per bushel was established. Producers were allowed to deliver to the CWB only if the market price fell below CDN \$0.90 per bushel. During these two years the market price remained above this level and the CWB did not receive any voluntary deliveries.

There was a record world wheat crop in 1938/39 that caused wheat prices to plummet. The Canadian government, in accordance with the Canadian Wheat Board Act, exercised its option and set the CWB initial payment at CDN \$0.80 per bushel. Since the market price remained well below the initial payment, the CWB ended up receiving the entire crop and suffered a deficit of CDN \$61,525,691.

Figure 14.2 Prices and Deliveries of Wheat to the CWB from 1935/36–1943/44



Source: Statistics Canada, *Grain Trade of Canada*, and CWB Annual Reports as taken from Lavoie (1996), p. 23.



The crop year of 1939/40, at the beginning of the Second World War, saw an increase in wheat prices. From 1939/40–1941/42, the initial payment for wheat was set at CDN \$0.70 per bushel. Those years were characterized by large wheat crops, inflation, problems of financing and storing large quantities of grain. During this period, the cash price of wheat was above the CWB initial payment most of the time, and this created sales-planning problems for the CWB. As can be observed in Figure 14.2, the CWB received high volumes of grain deliveries at the beginning of both the 1939/40 and the 1940/41 crop years, because the cash price was close to the initial payment. As the cash price escalated over the crop year, however, producers reduced their deliveries to the CWB and increased their deliveries to the open market.

In 1942/43, as a result of record grain production coupled with an increase in the world demand for grain, Canadian producers experienced problems due to limited grain transportation capacity. The initial payment for wheat was increased to CDN \$0.90 per bushel. Deliveries to the CWB occurred mostly between August and March, and slowed considerably during the successive months as the gap between the cash price and the initial price widened (Lavoie, 1996).

For the 1943/44 crop year, the CWB publicly stressed the danger of making sales in a rising market without having replacement grain available for delivery. Great Britain had inquired about buying one million tonnes of Canadian wheat futures, but, given the low producer deliveries, the CWB did not think it could promise such a volume. The alternative was for Great Britain to buy futures on the open market, putting further upward pressure on wheat prices. The rise in wheat prices was becoming a problem for the Canadian government because it was offering a subsidy on wheat that was being used for domestic consumption. In addition, it was offering wheat for Mutual Aid purposes. It was estimated by Wilson (1978) that "because of the Mutual Aid and the domestic subsidy, each rise of one cent was costing the federal treasury \$2.5 million" (773). There was discussion about fixing the grain price, such that it would benefit Canadian farmers, but minimize the cost to the government treasury (Morris, 1987).

A federal decision made on September 27, 1943, was to close the Winnipeg Grain Exchange and make the CWB a compulsory marketing organization. The unsold wheat of the 1940/41, 1941/42 and 1942/43 crop years, as well as all the unsold wheat that was in commercial hands, was acquired by the government at the closing price of CDN \$1.2325 per bushel on September 27, 1943. The acquired wheat was to be administered by the CWB under a separate Crown account to meet Mutual Aid purchases. The initial payment for the 1943/44 crop year was raised from CDN \$0.90 per bushel to CDN \$1.25 per bushel. Given the closure of the Winnipeg Grain Exchange, only the latter initial payment prevailed in Canada (Figure 14.2). This program was made effective only until July 31, 1945 (Lavoie, 1996).

The performance of the CWB as a VDM during the 1935/36 to 1943/44 period is summarized in Table 14.1 in terms of initial payment, average cash price, market share and surplus/deficit. As can be observed in this table and in Figure 14.2, when the cash price was below the CWB initial payment, the CWB obtained a large market share and incurred a deficit. When the market price was above the CWB initial payment, the CWB obtained a lower market share.



**Table 14.1 Summary of the CWB Performance for No. 1 Northern Wheat, 1935/36–1943/44 Crop Years<sup>1</sup>**

	<i>Initial price</i>	<i>Average cash price</i>	<i>CWB market share</i>	<i>Surplus (deficit)</i>
<i>Crop year</i>	<i>CDN\$ per bushel</i>	<i>CDN\$ per bushel</i>	<i>percent</i>	<i>CDN\$</i>
1935/36	0.872	0.850	70	(11,858,104)
1936/37	0.872	1.220	0	-
1937/38	0.872	1.312	0	-
1938/39	0.800	0.620	100	(61,525,691)
1939/40	0.700	0.762	82	(8,816,210)
1940/41	0.700	0.740	88	17,900,258
1941/42	0.700	0.760	44	12,189,831
1942/43	0.900	0.942	61	8,782,186
1943/44	0.900	1.250	0	

<sup>1</sup> Basis Fort William and Port Arthur.

Source: Statistics Canada, *Grain Trade of Canada*, various issues; Lavoie, 1996.

## FEED BARLEY

The problems of the dual market that were created for feed barley in 1974 also raise some serious questions about the viability of dual marketing in the 1990s and beyond. These problems are highlighted below.

**The 1994/95 Crop Year Experience:** In the 1994/95 crop year, the marketing of barley in Canada took some bizarre twists because of the problems created by dual marketing (Schmitz et al., 1997a; Lavoie, 1996). The events of the 1994/95 crop year led to a shortage of barley to the CWB (Table 14.2, as paraphrased from Lavoie, 1996). The year began with a modest price of CDN \$95–CDN \$105 per tonne in the barley PRO, which rose slowly as the year progressed. Open-market prices for barley, however, increased significantly. On the international supply and demand scene, the Australian drought and lower E.U. barley supplies (due to acreage reduction under the CAP) made Canada the world's dominant supplier of two-row malting barley. In the Canadian market, the upward pressure on the malting barley price, in combination with an excellent barley crop, resulted in a higher than usual proportion of the barley crop grading as malting. Further upward pressure on the domestic feed barley price resulted, as more HRS wheat than usual was graded No. 1. This reduced the supplies of feed wheat, and raised feed wheat prices. With this higher feed wheat price, livestock producers turned to cheaper feed grains, namely barley.

The demand for Canadian barley, from both the malt importers and the domestic livestock producers, accelerated in February 1995. In March and April, to

**Table 14.2 Chronology of Events: Feed Barley Market in 1994/95**

<i>Date<sup>1</sup></i>	<i>Events</i>
March 31, 1994	Pool Return Outlook for barley 1 CW: CDN \$95–\$105 per tonne. CWB predicts no change in feed barley price but a rise in malting barley prices (Rance, 1994).
April 7, 1994	U.S. seeds lowest barley acreage in history (acreage is reduced by 3 percent from 1993) according to the USDA (Munro, 1994).
May 5, 1994	Statistics Canada 1994 Planting Intentions: barley acreage is expected to decrease by 3.6 percent (Rance, 1994).
May 26, 1994	UGG predicts strong feed barley market due to smaller barley crop and higher domestic feed use. With good weather, more top-grade wheat could be produced leading to an increased demand for feed barley. More barley will grade malt quality, resulting in more pressure on feed barley prices (Munro, 1994).
June 23, 1994	Planting winter crop in Australia is delayed due to drought in Queensland and northern New South Wales.
June 30, 1994	Due to persistent drought conditions in Australia, growers are switching to barley, leading to an increase in the forecasted production of barley by 9 percent to 5.86 million tonnes.
July 28, 1994	Australian drought is predicted to last for next six months and threatens planting summer crop.
August 4, 1994	Initial payment for feed barley: CDN \$75 per tonne (Ewins, 1994).
September 15, 1994	Drought spreading throughout Australia. Canadian beef inventory is at 4.4 million head: a 5.4 percent increase from last year and the largest herd since the all-time high in 1975 (4.5 million cattle) (Gietz, 1994).
September 22, 1994	ABARE barley crop forecast drops by half to 3.4 million tonnes.
October 6, 1994	UGG estimates half of the wheat crop will grade No. 1 and the percentage of two-row barley expected to grade malting is double the historical average at 22 percent (Duckworth, 1994).
October 20, 1994	Initial payment for feed barley increases to CDN \$90 per tonne (Ewins, 1994). Australian Wheat Forecasters Party (AWFP) slashes forecast for 1994–95 barley to 2.85 million tonnes from 3.26 million tonnes a month ago and 6.9 million tonnes last season.
November 3, 1994	The CWB raises the PRO to CDN \$106–\$116 per tonne for feed barley.
November 24, 1994	AWFP cut its forecast for Australian barley to 2.57 million tonnes. U.S. harvest a record 254 million tonnes of corn which is moving into southern Alberta and Manitoba, displacing barley (Duckworth, 1994).
December 1, 1994	The CWB raises the PRO to CDN \$110 per tonne for feed barley.
December 15, 1994	Initial payment for malting barley is increased due to limited Australian and European supplies of malting barley (Ewins, 1994).
January 5, 1995	The CWB raises the PRO to CDN \$113–\$123 per tonne for feed barley.
February 9, 1995	Statistics Canada announces barley stocks on December 31, 1994 were down by one million tonnes from last year.
February 16, 1995	The CWB announces it will consider lowering its specifications for premium malting barley grade. Even with a strong demand for malting barley, stocks have nearly been exhausted (Munro, 1995).

February 23, 1995	The CWB raises the PRO to CDN \$116–\$124 per tonne for feed barley.
March 23, 1995	The CWB drops the germination level from 95 percent to 93 percent for malting barley and farmers are recommended to re-submit samples (Duckworth, 1995).
March 30, 1995	The CWB announces an EPR of CDN \$117 per tonne for feed barley.
April 27, 1995	CWB calls 100 percent of D Series contract, even though sign up deadline is not until May 31 and delivery deadline is June 30. Feedlots in Lethbridge area are offering CDN \$130–\$135/per tonne, less freight and draw barley from as far as northeastern Saskatchewan and Manitoba (Ewins, 1995).
June 15, 1995	CWB has had to pass on sales opportunities and buy back some U.S. contracts to meet its commitments to the Japan Food Agency due to its trouble attracting deliveries. The malting barley pool will be a record 2.1 million tonnes, larger than the feed barley pool (Ewins, 1995).
June 29, 1995	CWB lowers EPR to CDN \$103 per tonne which corresponds to a farm gate price of CDN \$75 per tonne.
July 6, 1995	Since mid-May, CWB has passed on 350,000 tonnes of Japanese tenders. CWB must dip into feed barley account for CDN \$10 million pay demurrage and late shipment penalties levied by Japan Food Agency. About 30 percent of tonnage committed under first three contract series was not delivered before termination date. CWB expects to receive one million tonnes of feed barley, which is about half of the total expected (Ewins, 1995).

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<sup>1</sup> Dates correspond to dates of publication of *Western Producer*, except for CWB announcement of PRO and EPR, which are dates of press release.

Source: Lavoie, 1996.

entice producers to deliver more barley, the CWB allowed a lower germination standard for malting barley and allowed delivery on the D Series contract before the sign-up deadline. These efforts, however, were not sufficient to obtain enough barley. The CWB could not compete with the price that was offered from the Alberta feedlots. In April, Lethbridge, Alberta area feedlots were offering CDN \$130 per tonne to CDN \$135 per tonne, less freight. The PRO of CDN \$117 per tonne for feed barley translated into about CDN \$90 per tonne at the farm gate (Table 14.2).

From mid-May to July, because of low volumes of barley delivered, the CWB had to relinquish about 350,000 tonnes of sales to Japan. The CWB also had to buy back contracts from the United States to meet the sales commitments to Japan. Moreover, demurrage charges and late shipment penalties of CDN \$10 million were levied by the Japan Food Agency and had to be taken from the feed barley pool account. Because of these factors, the March EPR of CDN \$117 per tonne had to be lowered to CDN \$103 per tonne (CDN \$75 per tonne at the farm gate) at the end of June 1995. (This price was based on sales already made and on projected sales that included the 350,000 tonnes to Japan.) The spread of CDN \$6 per ton between the cash market and the

CWB's EPR was such that producers found it profitable to break their delivery contracts with the CWB. This led to a further reduction of barley deliveries to the CWB. The final pool price for No. 1 CWB barley was CDN \$101.94 per tonne.

Until mid-December the cash price was mostly below the average PRO. Since the cash price was increasing, deliveries to the CWB were moderate. From mid-December to the beginning of March, the cash price decreased and the PRO was raised twice, resulting in some of the highest deliveries to the CWB for 1995. Until the end of March, the PRO was mostly above the cash price. This situation changed at the end of March when the cash price rose to the average PRO level. The EPR announced at the end of March was lower than the previous average PRO, which resulted in low April deliveries to the CWB.

For the remaining portion of the year, the cash price, which had been progressively increasing through the year, started increasing at a faster rate and went higher than the EPR. At the end of April, the CWB opened the D Series contract, which resulted in increased deliveries despite the fact that the cash price was above the EPR. The cash price rose dramatically in May and June and deliveries to the CWB slowed. Finally, deliveries to the CWB almost stopped from mid-July to the end of August, with the EPR decreasing to CDN \$103 per tonne. This drop in the EPR was a consequence of the low deliveries to the CWB.

The CWB, therefore, ended up with a final pool price of CDN \$101.94 per tonne. It is expected that, without the delivery contracts in place, deliveries to the CWB would have been even lower. If the producers had delivered their grain to the CWB, the CWB could have bid on the Japanese tenders and, consequently, could have increased the initial payment and the PRO.

**Deliveries of Feed Barley to the CWB:** Evidence of the problems associated with dual marketing is clearly provided by the volume of CWB feed barley sales in the domestic feed grain market (Table 14.3). From 1987/88–1996/97, the CWB sold less than 1 percent of its total prairie barley production to the domestic feed market. As Gray et al. (1999b) state:

During the period 1987/88 to 1996/97, by far the largest market for barley was the domestic market in which 67% of barley production was used mainly as feed. The CWB played a very minor role in the domestic feed market, selling less than 1% of production into this market. For the remaining 33%, the CWB sold 6% of the barley produced to domestic maltsters, 7% of production to foreign maltsters, and exported 21% of production as feed barley.

As shown in [Table 14.3] there is an upward trend in domestic barley feed and seed use, and in domestic and export malting barley sales. This most recent year reported (1997/98) reflects the growth in the domestic feed barley use to 81% of production and a growth in the volume of malting barley sales to 9% of production with the result that the volume exported as feed has decreased to 6% of production. The reduction in feed exports indicates that rather than being a significant exporter of feed barley, Western Canada has become little more than self-sufficient. In the 1997/98 crop year CWB sales in the domestic feed market grew somewhat but remained below 1% of total production. (3)

**Table 14.3 Barley Supplies and Disposition by Crop Year**

<i>Crop year</i>	<i>Domestic use<sup>1</sup></i>				<i>Exports<sup>1</sup></i>		
	<i>Production</i>	<i>Imports</i>	<i>Feed<sup>2</sup> and seed</i>	<i>Malting barley</i>	<i>Malting barley</i>	<i>Feed barley</i>	<i>Ending stocks</i>
	<i>1,000 tonnes</i>				<i>1,000 tonnes</i>		
1987/88	13,916	1	8,282	591	498	4,096	3,794
1988/89	10,326	1	8,027	588	325	2,515	2,790
1989/90	11,784	0	7,811	640	448	4,049	2,056
1990/91	13,441	1	7,662	649	638	3,898	2,646
1991/92	11,617	2	7,584	720	936	2,405	2,614
1992/93	11,032	3	6,941	730	333	2,371	3,266
1993/94	12,972	8	8,275	748	862	2,974	3,376
1994/95	11,692	8	9,409	826	1,388	1,622	1,820
1995/96	13,033	10	9,848	922	1,426	910	1,740
1996/97	15,562	19	10,000	938	1,392	2,047	2,919
10-year average	12,538	5	8,384	735	825	2,689	2,702
1997/98	13,527	28	10,905	966	1,276	851	2,457

<sup>1</sup> 1997/98 domestic feed and seed and malting use; and malting exports estimated using CWB annual report (designated barley pool).

<sup>2</sup> Feed refers to feed, waste and dockage.

Source: Statistics Canada; Canadian Grain Commission; and CWB Annual Report, various years.

## CONTRACTUAL DUAL MARKETING: A VIABLE ALTERNATIVE?

If producers continue to push for a dual market, and if the new Board of Directors of the CWB decides to implement a dual-market scheme, what would be the result? As we have argued, with a voluntary dual marketing arrangement, the CWB system would likely collapse. (A continental barley market is really no less than a full dual market, in that shipments can go through the United States to offshore markets.) The collapse of the CWB would give rise to a completely open-market system.

What about contractual dual marketing? Consider, as an example, a continental wheat market (this could easily include durum wheat and barley). Such a dual market would allow farmers, who opt out of the existing CWB marketing system, to market their wheat within Canada as well as the United States. Suppose that on January 1, 2000, an announcement was made for implementing this dual market. Producers wanting to sell to the CWB would have to sign contracts. The CWB could sell on the North American continent, as could the private trade, but the CWB would have exclusive marketing rights beyond the continent.

Suppose that when the dual market was instituted, only 10 percent of the volume of wheat was contracted with the CWB. In this case, the designation of a dual market would be merely legal or semantic, for the CWB would have a very small market share.

In this situation, most of Canada's wheat would be sold in the Canadian and American private markets. This would apply heavy downward pressure on North American prices and likely trigger negative reaction from American producers.

What if, on the other hand, producers contracted and delivered 80 percent of their grain volume to the CWB? What are some of the problems involved with dual marketing in this situation? (1) There is the problem of policing. MGCs could easily sell Canadian wheat to offshore markets, such as Japan (clearly, policing is not a problem if the dual market applies to all outlets for Canadian wheat). (2) How can farmer contracts with the CWB be enforced? (3) What happens if the CWB runs a deficit in the pool account? To increase the likelihood of obtaining a sizable and stable market share, the pool can offer a high initial payment. The higher this initial payment, the bigger and more stable the expected market share will be. If the initial payment is set too high, however, the pool will run the risk of incurring a deficit. Fulton (1996b) holds that a pool would be unable to risk running a deficit, even for a year, without collapse:

The CWB would need some way of funding the deficit. If the deficit were funded by the government, strong objections would be raised by both the private grain trade and by other grain trading countries. The private grain trade would object because they would see such funding as the subsidization of the grain pool, thus making sales through them less attractive. Other grain trading countries would object because, under the new World Trade Organization established under the recent GATT agreement, they would see such funding as a form of a direct agricultural subsidy that could influence grain production in Canada. If funding for deficits was provided by checkoffs on grain delivered to the pool, farmers would be that much less willing to deliver to the pool because the pool price would be reduced by the amount of the checkoffs. (5)

The question remains: in a dual market, what would be the advantages of marketing to the CWB? Clearly, price premiums are the primary advantage to producers who market through the CWB. The price premiums, calculated for wheat by Kraft et al. (1996), and for barley by Schmitz et al. (1997a), would disappear in a dual market for producers because the CWB would be unable to price discriminate between markets. If other significant advantages did, in fact, exist, then they should give rise to a private marketing cooperative enterprise in which a price-pooling option would be available to producers. (To our knowledge, there are no producer grain-marketing cooperatives in North America that have successfully used price pooling.) Likely, the Canadian government would push for this arrangement, and would abandon the CWB, thereby removing itself from grain marketing. As evidenced by domestic feed barley marketing, no such private market cooperatives have formed. In the Canadian context, a dual-marketing arrangement would give rise to a marketing system in which farmer grain cooperatives with a price-pooling dimension would play no role.

What are the implications of short-term or long-term contracts for a dual-marketing system? Generally, the longer the terms of the contract, the fewer the number of farmers who would opt out of the CWB system. Whether or not the CWB could keep these market shares over the long run, under any contract, is another matter. Our previous arguments cast doubt on whether it could.



## DUAL MARKETING: THE CHARTER CASE DEBATE

In the Charter Case, Carter, an expert for the plaintiffs, argued that a dual-marketing system could work; he cited rice marketing in California and domestic wheat marketing in Australia as examples (Dr. Carter's affidavit, Exhibit E). Fulton (1996a and 1996b), however, argued that Carter's examples support the argument that dual markets for prairie grains are not viable—the very opposite of Carter's contention. The Honourable Mr. Justice Muldoon, who presided over the case, relied heavily on Fulton's arguments as to why dual markets elsewhere were not necessarily transferable, as examples, to the prairie grains situation. Fulton (1996b) argued as follows:

Dr. Carter is correct when he says there are examples in other countries where dual markets operate. It is incorrect, however, to infer from the existence of dual markets in other countries and other commodities that dual marketing, at both the domestic and export level, will work for wheat and barley in western Canada. Production and marketing systems are complex things, with all of the components linked together. One marketing method cannot simply be transplanted into an entirely different production and marketing system and be expected to work. More specifically, dual marketing requires certain characteristics at both the production and processing level in an industry if it is to be viable. (1)

There are a number of examples of dual markets in California and in Australia. Dual markets in California exist for such commodities as citrus, raisins, peaches, almonds, cotton and rice. These dual markets are associated with cooperatives that purchase products from their members at a pooled price. Pooling cooperatives in California include Sunkist Growers, Inc. (citrus), Sun-Maid Growers (raisins), Tri-Valley Growers (peaches), Blue Diamond (almonds), Calcot Ltd. (cotton) and Farmers' Rice (rice) (Smith and Wallace, 1990).

According to Fulton (1996a and 1996b), assessing the viability of a pool depends on at least three factors: (1) the pool's ability to attract a significant market share; (2) the market share being stable; and (3) the pool operating without a deficit. Fulton (1996a and 1996b) also contends that a large investment is required for pre-processing and processing. Since there are few growers with volumes large enough to capture economies of scale in processing, crop production requires fixed investments committed over several years. Fulton (1996a) also notes:

- There is considerable flexibility in harvesting and storing the raw product.
- Useful grades can be defined and prices can be pooled over marketing periods.
- Costs of marketing can be spread over a longer season.
- Growers make marketing decisions infrequently and/or when individual marketing decisions cannot earn higher returns (Smith and Wallace, 1990).

The factors listed above are needed if a pooled-pricing cooperative, that operates in a dual market setting, is to attract a significant and stable market share. With these factors in place, farmers would find it more advantageous to either sell or process their production through a cooperative as individuals rather than as a group.

According to Fulton (1996a and 1996b), a number of the factors required for successful cooperative involvement in marketing are not present in the case of wheat



and barley in western Canada. Most grain farmers are able to access markets (for example, at the local elevator or at a distant grain mill) without a significant investment and without having to deal in large volumes of grain. Wheat and barley production does not specifically require fixed investment, committed over several years. Although crop production, in total, does require such investments, farmers can use these investments to produce a wide range of crops, including wheat, barley, oats, canola, lentils, peas, and other specialty crops.

The fact that grain farmers are able to access markets without a significant investment, and without having to possess large volumes of grain, means that there is little incentive for farmers to commit themselves to a price-pooling organization. Hammonds (1976) made this point in his study of cooperative market pooling:

...any cooperative or other body initiating a market pool must be certain it can provide a special service or expertise that is truly beyond the reach of individual growers, if sustained success is to be assured. Evidence is conclusive that merely combining the crop volume of a number of growers for marketing purposes is not enough. The successful operations studied capitalized on one or more special advantages they developed to differentiate their role in the marketing of the agricultural commodities with which they are identified. (v)

The special advantages identified by Hammonds include specialized grading services offered by the cooperative, brand name products at the consumer level, quality control programs offered by the cooperative, and substantial vertical integration. The research on California cooperatives supports this conclusion. California cooperatives have been uniquely successful in moving into processing, vertical integration, and brand name products at the consumer level.

The opportunity for cooperatives to provide special services is highly dependent on the market share and the market share stability the cooperative is able to achieve. A large and stable market share means that the cooperative will be able to exploit economies of scale to enable it to attract further market share. However, as Smith and Wallace (1990) point out, the opportunities for cooperatives to develop economies of scale differ from commodity to commodity. For instance, since the sale of fresh vegetables involves very little processing, individual growers are in the same position to supply fresh vegetables to various markets as is a collection of growers. As a result, cooperatives often have trouble attracting and maintaining membership, since they can offer very little in comparison to what individual producers can provide when acting alone. As the evidence from California shows, cooperative activity in fresh vegetable marketing is very low. In contrast, packaging and advertising almonds or raisins is an activity that is costly for individual growers, but it can be done less expensively by a cooperative. Almonds and raisins are two commodities for which cooperatives have a significant market share (Smith and Wallace, 1990).

Because the opportunities for economies of scale are different for various commodities, the same marketing system is not always appropriate for all commodities. For the case of wheat, individual wheat producers can access grain markets as effectively as a pooling agency can when operating in a dual market. Thus, a wheat-pooling or barley-pooling agency in western Canada cannot provide special advantages in market access. In a dual market, any premiums available under single-desk selling

will be unavailable. Thus, a wheat or barley grain pool will be unable to offer any special advantage on price that private producers cannot already capture on their own.

The result is that a wheat or barley pool in western Canada will be unable to attract a significant or stable market share. This creates a vicious circle in which the lack of opportunities for economies of scale results in a low and variable market share. In turn, the low and variable market share results in a lack of opportunities for economies of scale. With a low and variable market share, a wheat or barley pool in western Canada is not viable. An example of the importance of market share stability is provided by the 1994/95 Canadian barley market.

A grain pool operating in a dual market will also have a problem with deficits. A price pool can avoid a deficit by not providing farmers with an initial price. This strategy, however, will have the consequence of significantly reducing the volume of grain the pool can expect to receive. If farmers have to wait until the pool period is over to receive payment, they will bypass the pool and sell to the cash market, unless the pool can generate a substantially higher price.

Based on the above arguments, Fulton (1996b) reaches the strong conclusion that a dual market for wheat or barley in western Canada will not work:

In a dual market, a wheat or barley pool in western Canada would be unable to provide any of the special advantages offered by viable pooling cooperatives. This inability to offer special advantages gives farmers little incentive to deliver to the pool except when it is strategically advantageous to do so. This translates into a low and variable market share and the conclusion that a dual market for both the export and domestic sales of wheat and barley will not be viable in western Canada. (5)

One important point must be kept in mind, however. By definition, a dual market would be viable with certain governmental and institutional regulations in place. Some proposals for a dual market have stipulated that farmers would have to deliver 80 percent of their production into the CWB pool. (Commitments would depend on the specific contracts and other details of the program.) The other 20 percent of producers' grain could be marketed through the private sector. Since many producers would not opt out of the CWB, likely much less than 20 percent of total grain for sale would go into the private sector. Assuming that contracts could be enforced (a debatable assumption), the volume of grain marketed by the CWB would be sufficient to maintain both the price benefits available to producers, and to maintain the CWB as a viable marketing organization.

## SUMMARY

Clearly, any analysis of the operational feasibility of a dual market for prairie grains is extremely complex. Even so, it is possible to present conclusions on the potential feasibility of dual marketing. For the case of voluntary pooling, both economic theory and empirical data strongly suggest that a dual market is not a viable option. A dual market could not exist in practice, because it would eventually give way to a completely open-market system, spelling the demise of the CWB.

Contractual pooling is a different matter than voluntary pooling, since it does have the potential to be operational in the short run. This is especially true if: (1) a dual market was restricted to private sales only to the United States; (2) the length of the CWB contract was long; and (3) added flexibility was built into the current CWB system.

Whether one is for or against the CWB, we cannot overemphasize the need to add increased flexibility to the CWB system. Additional insights concerning flexible pricing options that could be a partial solution to the dual marketing debate need to be addressed. Emphasis should be placed on whether or not farmers could hedge grain via the CWB on the U.S. futures market, a topic of the previous chapter.

Strategic buying and selling by the CWB is an important topic for further research in the event that dual marketing is introduced. The issue of strategic buying and selling should be explored and the effect on the viability of dual marketing should be discussed.

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## CHAPTER 15

### CONCLUSIONS

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*Professors Carter and Loyns, strong opponents of CWB marketing, argue that the CWB is as archaic as the Schmitz "horse" barn picture above. Professor Schmitz notes that it is a dairy barn, not a horse barn (Bob Hainstock, Barns of Western Canada, p. 88).*

*A State Trading Enterprise that controls domestic supplies or one that controls exports representing a major share of domestic production has a sure supply, as long as the weather cooperates. This gives the STE much greater freedom than a private firm in making export sales commitments, resulting in a significant advantage in reaching long-term trade agreements with importing governments. The Canadian Wheat Board also benefits from government support ranging from direct subsidies to indirect subsidies, such as subsidized interest rates on government loans.*

— Richard Rominger,  
U.S. Deputy Secretary of Agriculture (1997)

*This crop year marks a major turning point in the CWB's future. This is the year when a new board of directors will oversee this multi-billion dollar corporation and represent farmer interests in CWB decision making.*

— Lorne Hehn,  
Chief Commissioner, CWB (August 1998)

*The CWB monopoly has long outlived its usefulness. What was perhaps a practical idea during the World War II era is no longer serving Canadian wheat producers in terms of efficiency or net returns.*

— Winston Wilson, President,  
U.S. Wheat Associates (1997)

The CWB has supporters and detractors. Controversies and criticisms about its economic performance have dogged the CWB's entire history, but they have intensified in the 1990s. Some of these criticisms emerged from debates about the efficiency of the CWB, and were attempts to alter the CWB in order to bolster producer returns. Not all criticisms had this motive; many were attempts to eliminate the CWB altogether. However, legitimate criticism can produce a better functioning organization, provided the organization responds and adjusts to these critiques. The CWB has changed and improved, in large part, because of concerns raised by farmers, farmer advocates, governments, private grain traders, elevator companies, and leaders of farm organizations.

Two important changes that the CWB has undergone include the introduction of CWB delivery contracting with producers, and the adoption of a CEO and a board of directors. This "New Canadian Wheat Board," as some have called it, has been welcomed by many. Pressure will continue, however, for even more changes to the CWB, particularly in terms of the pricing options the CWB makes available to grain producers. Pooled pricing, with initial payments guaranteed by the federal government, has been a key feature of the CWB since the inception of compulsory grain marketing in Canada. There is an urgent need to add additional pricing options.

We have presented five pricing options in this volume and have assessed their costs and benefits. One price option discussed was the dual-marketing, futures-trading approach used by Calcot Ltd., which is a successful cotton-marketing cooperative in the United States. Calcot Ltd. provides farmers with both a seasonal pool (similar to that of the CWB) and a call pool in which farmers can hedge cotton on the New York Stock Exchange through Calcot Ltd. This dual market within the Calcot system is similar to a proposal put forward in the late 1990s by the Western Canadian Wheat Growers Association (WCWGA) for the CWB. This option, along with others listed, should be given serious consideration by the CWB. The availability of hedging options has become even more important for farmers in view of the high degree of uncertainty and price instability present in world grain markets. As this book points out, several factors, including abrupt changes in import patterns of centrally planned economies, have added tremendously to price volatility in the world wheat economy. (Many farmers now have the computer capability and knowledge to follow volatile world markets and manage risk accordingly.)

Special interest groups in Canada, which include grain companies and farm organizations, have had heated disagreements over the CWB. For example, the

WCWGA supports dual marketing while the National Farmers Union does not. The United Grain Growers, Ltd. supports dual marketing and Agricare (the recent merger of the Manitoba and Alberta Wheat Pools) does not. The WCWGA supports the changes recommended by Estey for the removal of the CWB from transportation, but the National Farmers Union does not.

Historically, strong support for the CWB came from the Saskatchewan Wheat Pool (SWP), but, in 1995 the SWP began trading shares on the Toronto Stock Exchange. The SWP now seeks to profit from the movement and handling of CWB grains. This seems to have lessened the SWP's support for the CWB.

Special interest groups outside of Canada have also presented challenges to the CWB. These groups include multinational grain companies, the American Farm Bureau, U.S. Wheat Associates, and certain U.S. cattle industry groups. These challenges are not surprising since many special interest groups stand to gain a great deal if the CWB is removed. Should the CWB disappear, the prairie grain industry would undoubtedly be taken over and dominated by multinational grain companies loyal only to profits, not necessarily to Canada or to Canadian farmers. Also, the World Trade Organization is looking more closely into the operations of state trading enterprises such as the CWB. While the WTO will continue to examine the operations of state trading enterprises such as the CWB, rigorous analysis of this issue shows that the CWB is not in violation of current WTO rules (despite claims by some groups to the contrary).

The CWB, thus far, has successfully defended itself against most of the attacks launched against it. In fact, these battles have generally improved its structure and efficiency. The U.S. General Accounting Office has investigated the CWB several times, as has other U.S. agencies. Eight such investigations have been launched by the United States. In all cases, the United States found that the CWB operates on sound capitalist principles and commercial business practices. Most recently, the ruling by the U.S. Department of Commerce in October 1999, which investigated the U.S. cattle countervail duty case against Canada, favored Canada. Despite suspicions of U.S. cattle interests, it was deemed that the CWB's barley-pricing practice does not provide a direct subsidy to Canadian cattle feeders.

This same general theme has also played out in disputes over the CWB within Canada. The continental barley market of 1993 was short lived and gave way to the CWB which once again took monopoly control of export barley marketing. The CWB withstood the "Charter challenge" when the constitutionality of the CWB was brought into question. In 1997, Mr. Justice Muldoon ruled that the CWB was operating within its authority and that the issue over compulsory marketing was a public policy matter. In 1998, over 65 percent of barley producers voted to maintain the CWB as a single-desk exporter of feed and malting barley. Despite the many criticisms, the CWB still maintains its status as a compulsory marketing agency.

The CWB, however, is not always on the defensive. When the CWB alleged that the CPR and CNR did not operate in the best interests of prairie grain producers during the 1996/97 crop year, both rail companies made financial settlements with the CWB. As of May 1999, the CWB offered major challenges to Estey's recommendations on grain transportation. Evidence suggests that the CWB is unlikely to go the way of the dinosaur any time soon. The CWB may well be gaining popularity, partly as a result of



the change in its governance from a commissioner structure to a CEO and board of directors management hierarchy.

One of the most important debates that surrounds the CWB concerns the concept of dual marketing. Some contend that dual marketing is one approach to maintaining the CWB, though not in its current role as a compulsory marketing agency. There is, however, a great deal of confusion and misinformation about the definition of dual marketing and whether or not U.S. cooperatives provide a viable model for the marketing of prairie grains. While we argue in this book that a form of dual marketing, within the current compulsory CWB structure, is perhaps possible (such as the Calcot Ltd. example), we caution that a dual market, in which the CWB operates as a voluntary pool alongside the open market, would more than likely result in the re-creation of a single market consisting only of multinational grain companies. In a profit-driven dual market, the CWB would be too seriously weakened to operate. However, there may be forms of dual marketing, different from the models we have discussed in this book, that may be operational.

Many forces affect grain markets for wheat and barley. Politics, farm policy, special interest groups, economics, and government regulations intervene between the grain fields and the dinner table. It is often difficult to determine the influences of each of these forces. Farm policies in the United States and the European Union have had a major impact on the wheat and barley trade. High price supports in the European Union, coupled with high export restitution payments and EEP in the United States, have caused Canadian grain prices to be lower than they would be under a free-trade environment. Political factors, such as foreign policy concerns, blockades, and even wars, are often the greatest influence on the patterns of trade. The geographical relation between suppliers and customers is often more affected by politics than by the economics of supply and demand. PL 480 shipments by the United States partly explain why Egypt is now a major buyer of U.S. wheat but not of Canadian wheat. Iran is a major importer of Canadian wheat because the United States refuses to trade with Iran—not because Iranian currency has no value, but because the United States does not approve of Iran's political ideology or its allies.

Government regulations on prairie grain marketing require special attention. These regulations are a source of a great deal of the debate within Canada over the CWB. Ironically, many charges against the CWB have little or nothing to do with the CWB. The claim, for example, that elevator charges in Canada are higher than in the United States is true. What is not true is the allegation that the CWB is responsible for those higher elevator charges.

This book deals with many other allegations levied against the CWB, most of which have little or nothing to do with the CWB. A significant claim is that the CWB is responsible for Canada not introducing and marketing high-yielding, medium-quality varieties of wheat. Once again, however, the CWB cannot be held responsible for the late introduction into Canada of high-yielding, medium-quality varieties because it is only one voice among the many which have a say in varietal development. The CWB only *markets* wheat, barley and durum; it does little else. Since they were introduced, higher-yielding, medium-quality wheat varieties, which are generally low in protein, have not proven to be the savior for Canadian wheat producers that some wishful thinkers had

hoped. Both Canada and the United States have found it extremely difficult to market this type of wheat (one such type is United States grown SRW wheat), which competes with other Canadian varieties such as CPS wheat. This is, in part, due to the E.U. high price supports and the exportation of high-yielding, medium-quality wheats worldwide under export subsidy conditions.

Debates concerning the CWB's structure and efficiency are essential for the CWB to continue to be an effective marketing organization for prairie grain farmers. This is true for an organization or bureaucracy of any type. External criticisms and judicial attacks on the CWB help remove organizational slack. Evidence and arguments used in these debates can often be ambiguous in their recommendations, and confusing to policymakers, farmers, the CWB, and others; they can even be deliberately misleading in their conclusions.

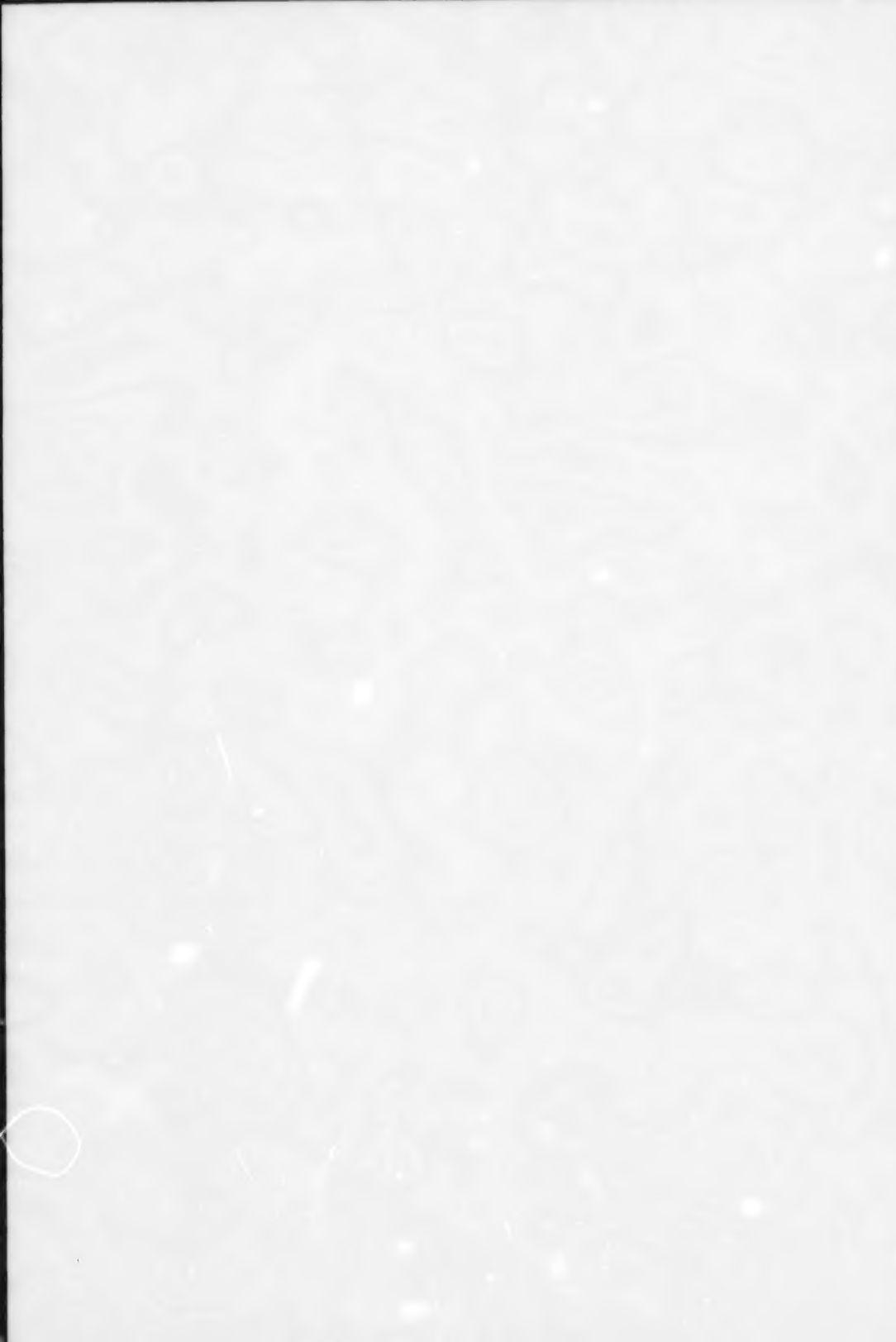
We hope that this book brings to light many of the issues in the debate concerning the performance of the CWB. Debates on such performance measures as U.S.-Canada price comparisons will undoubtedly continue. When comparing American and Canadian farm-gate prices, however, American prices do not always come out higher, especially when EEP is correctly factored into the equation. As noted in U.S. and other investigations into the operations of the CWB, Canadian prices are often higher than American prices. For example, feed barley prices in Canada in 1998 and 1999 generally exceeded those in the United States. Even so, it is important to stress that price comparisons between the United States and Canada do not provide conclusive evidence that the CWB is an inefficient organization. Many variables, including the role of agricultural policy, must be adequately factored into any analysis. For example, in the United States, market prices for wheat have little to do with prices received by producers. U.S. farm policy has provided significant payments to producers which take various forms, including deficiency payments.

By focusing solely on such performance measures as cross-country price comparisons, one loses sight of the structure of the world grain trade. Drawing attention to export market shares by country and commodity is a case in point. Canada, in durum wheat, for example, has, by far, the largest export market share, which exceeded 50 percent in the late 1990s. Another major durum producer and exporter is Canada's neighbor, North Dakota. In view of the structure of the world grain trade, we pose the question in this book as to why Canada and the United States have not jointly formed a cooperative marketing structure, which could take advantage of their predominant roles in producing and exporting durum. To the authors and to others who have studied this subject, the potential for export cooperation appears to be significant.

Using the criteria set forth in this book, including price comparisons that involve countries in which MGCs are located, the CWB has been an effective marketer of wheat and barley, in spite of the fact that it has encountered many problems. No marketing system is perfect when compared to an ideal theoretical construct of a grain-marketing system. The basis of CWB marketing is pooled pricing, where all producers receive the same price for a given crop year for a given quality of grain (except for certain adjustment factors). The argument in the Charter Case challenged the CWB's compulsory marketing approach, with its underlying price-pool concept, because it does not

give farmers the opportunity to sell or hedge on a day-to-day basis. The plaintiffs seem to argue that superior farm managers can do better in an open market, even in crop years when a weighted-average price (in the absence of the Board) would be lower than a CWB pooled price. Whether or not this is the case is not debated here. If the plaintiffs of the Charter Case are correct, there are gainers and losers from CWB marketing. Even so, restricting the farmer's choice in marketing, as Mr. Justice Muldoon ruled, is not in violation of the Canadian Charter of Rights and Freedoms, rather it is a matter of policy to decide which marketing system is best.

Currently, some astute farm marketers partly overcome the shortfall of not being able to hedge wheat within Canada by using the Minneapolis and Chicago commodity market exchanges, even though this type of marketing strategy has certain risk aspects attached to it, which U.S. farmers do not encounter. Also, the CWB is considering new price options to deal with the lack of price flexibility inherent in the structure. As stressed earlier, the CWB has to consider seriously, as one of the many new price options discussed, the possibility of separate CWB accounts in which producers can hedge grain through the CWB using commodity exchanges. The question remains: if the CWB decides to use both a seasonal pool and a call pool (that is, where farmers can place hedges through the CWB), would producers receive higher prices in the call pool? The call-pool prices could well be lower, as is the case the United States where these types of marketing options exist. Even so, producers may be satisfied because the call pool offers an option to manage risks by locking in prices before and/or after seeding.



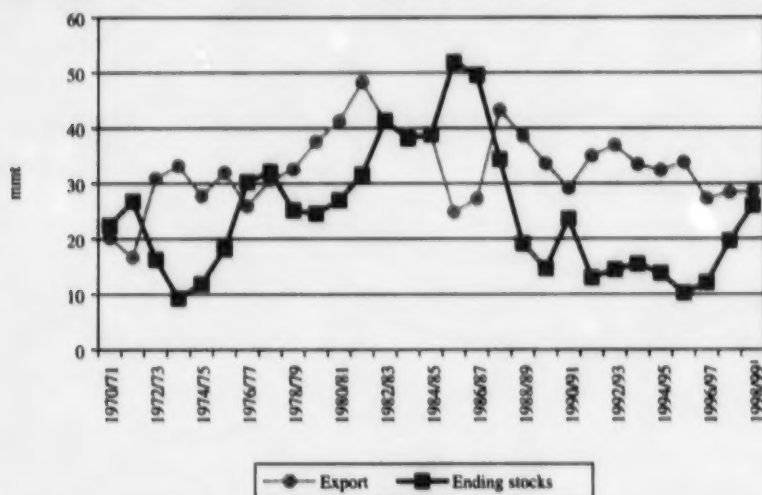
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## APPENDICES

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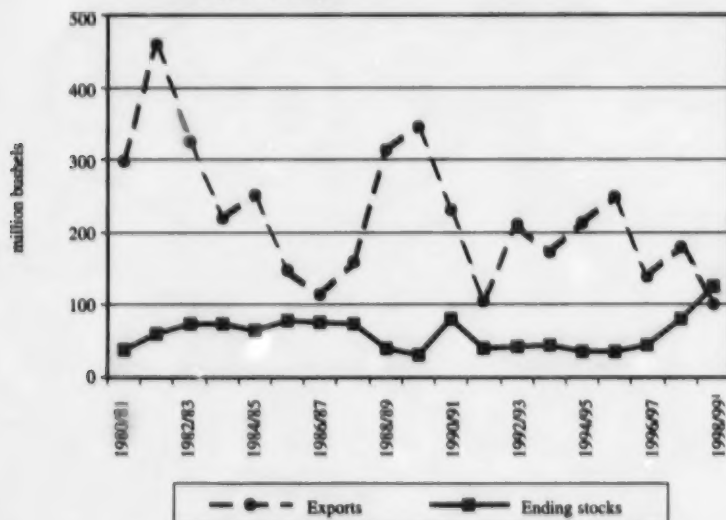


Photo courtesy the Canadian Wheat Board.

**Appendix Figure 2.1 U.S. Wheat Exports and Ending Stocks: 1970/71–1998/99**

<sup>1</sup> 1998/99 numbers are projected.

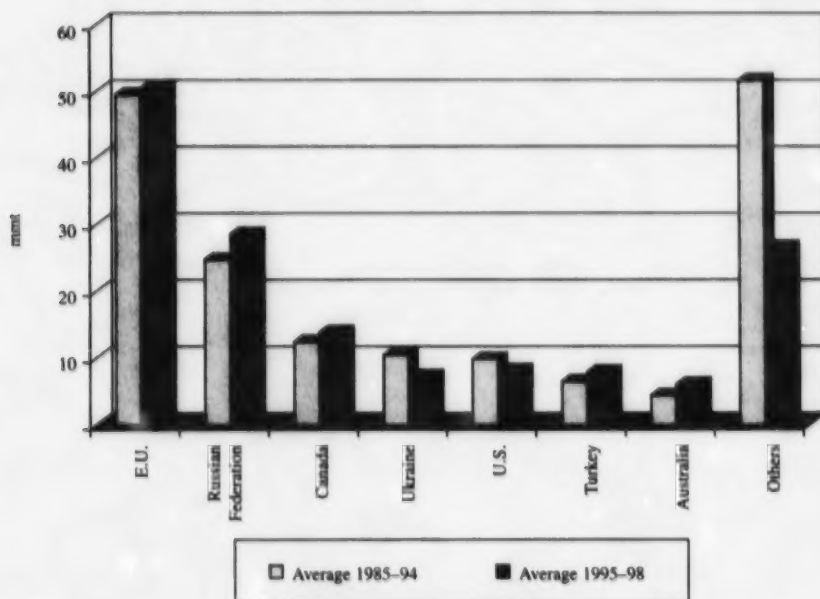
Source: USDA, ERS, Wheat Yearbook, 1998 and 1999.

**Appendix Figure 2.2 U.S. Soft Red Winter Wheat Exports and Ending Stocks: 1980/81–1998/99**

<sup>1</sup> 1998/99 numbers are projected.

Source: USDA, ERS, Wheat Yearbook, 1998 and 1999.

**Appendix Figure 2.3 World Barley Production: 1985–1994 Average Compared to 1995–1998 Average<sup>1</sup>**



<sup>1</sup> Production estimates net-weight basis, that is, excluding excess moisture or excess foreign material.

Source: Canada—Statistics Canada. All other countries/total—USDA, PS&D database; USDA, FAS, Grain: World Markets and Trade, various years.



**Appendix Table 2.1 World Trade in Wheat and Flour, 1980/81–1997/98**

	<i>Commercial markets</i>	<i>EEP eligible markets</i>	<i>Aid</i>	<i>Total trade</i>
<i>Crop year<sup>1</sup></i>	<i>1,000 tonnes</i>			
1980/81	87,451	N/A	2,588	90,038
1981/82	90,701	N/A	5,691	96,932
1982/83	85,660	N/A	5,926	91,585
1983/84	89,665	N/A	6,834	96,499
1984/85	93,462	N/A	7,385	100,847
1985/86	61,664	10,706	6,667	79,038
1986/87	34,383	42,082	9,447	85,912
1987/88	32,823	58,952	9,779	101,554
1988/89	34,467	52,370	5,706	92,544
1989/90	35,386	47,756	6,287	89,429
1990/91	39,814	39,329	7,606	86,749
1991/92	38,501	57,514	6,361	102,376
1992/93	38,068	56,509	5,005	99,582
1993/94	49,631	32,113	4,729	86,473
1994/95	57,990	32,139	4,049	94,178
1995/96	90,891	0	3,582	94,473
1996/97	92,897	0	2,920	95,817
1997/98	92,120	0	3,000	95,120

<sup>1</sup> June/July crop year.

Source: Kraft et al., 1996, p. 8, and International Wheat Council, World Grain Statistics.

**Appendix Table 2.2 Projected Canadian Wheat Exports by Region, 1999/2000–2004/05 Compared to the 1989/93 Base Period**

<i>Country</i>	<i>1989/93 Base period</i>		<i>1999/2000 Period</i>		<i>2004/05 Period</i>	
	<i>mmt</i>	<i>% share</i>	<i>mmt</i>	<i>% share</i>	<i>mmt</i>	<i>% share</i>
Europe	1.0	5.0	1.4	5.9	1.5	5.6
FSU	3.5	16.8	0.7	3.0	0.7	2.6
Middle East	1.6	7.9	2.2	9.4	2.3	8.7
Africa	1.6	7.5	2.0	8.5	2.6	10.0
Asia Pacific	8.7	41.9	9.5	41.4	10.8	41.6
Latin America	3.1	14.9	5.7	24.6	6.2	24.0
Others/unspecified	1.3	6.1	1.7	7.3	2.0	7.5
World total <sup>1</sup>	20.9	100.0	23.0	100.0	26.0	100.0

<sup>1</sup> Totals may not add due to rounding.

Source: CWB Grain Trade Forecast to 2004/05, various years.

**Appendix Table 2.3 Major Wheat Exporters: 1981/82–1997/98<sup>1</sup>**

	Canada	Australia	Argentina	EEC/EU	U.S.	Total trade
<i>Crop year</i>	<i>percent market share</i>					<i>1,000 tonnes</i>
1981/82	17	12	4	14	48.6	96,258
1982/83	20	9	8	15	42.0	91,718
1983/84	20	12	10	16	38.8	96,253
1984/85	16	15	8	18	37.0	98,476
1985/86	21	20	8	18	29.8	79,020
1986/87	22	18	5	18	31.0	84,857
1987/88	21	12	4	14	41.7	100,717
1988/89	11	11	4	18	37.5	98,996
1989/90	16	11	6	19	32.9	97,177
1990/91	20	12	5	20	28.7	94,541
1991/92	21	8	6	19	32.4	104,207
1992/93	17	9	7	19	33.6	106,804
1993/94	17	15	5	19	33.2	96,141
1994/95	18	8	8	17	33.5	94,178
1995/96	14	13	5	14	34.8	94,473
1996/97	16	19	11	18	27.1	95,817
1997/98	17	16	10	16	28.3	95,120

<sup>1</sup> Excludes durum sales.

Source: CWB Statistical Tables; CWB Annual Report, various years.

**Appendix Table 2.4 Canadian Non-CWRS<sup>1</sup> and Non-CWES<sup>2</sup> Wheat Production, 1984–98**

	CPSR <sup>1</sup>	CPSW <sup>3</sup>	SWS <sup>3</sup>
<i>Year</i>	<i>mmt</i>		
1984	0.12	-	0.72
1985	0.41	-	0.88
1986	0.56	-	0.66
1987	0.24	-	0.49
1988	0.13	-	0.30
1989	0.16	0.04	0.30
1990	0.39	0.14	0.41
1991	1.29	0.35	0.47
1992	1.47	0.59	0.39
1993	1.19	0.90	0.63
1994	0.99	0.65	0.38
1995	1.25	0.60	0.29
1996	1.64	0.83	0.39
1997	1.62	0.97	0.41
1998	1.73	0.74	0.17

<sup>1</sup> Canadian Western Red Spring wheat.<sup>2</sup> Canada Western Extra Strong wheat.<sup>3</sup> Canada Prairie Spring Red wheat.<sup>4</sup> Canada Prairie Spring White wheat.<sup>5</sup> Soft White Spring wheat.

Source: Statistics Canada, various years.

**Appendix Table 2.5 Colombia's Wheat Imports from Canada, 1983/84-1997/98**

<i>Year</i>	<i>CWRS<sup>1</sup></i>	<i>CPS<sup>2</sup></i>	<i>CWES<sup>3</sup></i>	<i>SWS<sup>4</sup></i>	<i>Other</i>	<i>Total</i>
<i>1,000 tonnes</i>						
1983/84	-	-	-	-	-	-
1984/85	-	-	-	-	-	-
1985/86	52,500	-	-	-	4,500	57,000
1986/87	174,862	-	-	-	15,525	190,387
1987/88	37,173	-	-	6,000	31,345	74,518
1988/89	162,800	-	-	-	-	162,800
1989/90	166,975	-	-	-	-	166,975
1990/91	197,892	-	-	-	-	197,892
1991/92	426,796	-	-	-	-	426,796
1992/93	399,214	-	-	-	60	399,274
1993/94	533,165	-	-	200	-	533,365
1994/95	365,310	12,840	-	-	-	378,150
1995/96	363,830	-	-	-	-	363,830
1996/97	428,335	-	-	-	4,001	432,336
1997/98	554,877	31,176	10,450	-	-	596,503

<sup>1</sup> Canadian Western Red Spring wheat.<sup>3</sup> Canada Western Extra Strong wheat.<sup>2</sup> Canada Prairie Spring wheat.<sup>4</sup> Soft White Spring wheat.

Source: Canadian Grain Commission, various years.

**Appendix Table 2.6 Mexico's Wheat Imports from Canada**

<i>Year</i>	<i>CWRS<sup>1</sup></i>	<i>CPS<sup>2</sup></i>	<i>CWES<sup>3</sup></i>	<i>SWS<sup>4</sup></i>	<i>Other<sup>5</sup></i>	<i>Total</i>
<i>1,000 tonnes</i>						
1983/84	-	-	-	-	275,675	275,675
1984/85	-	-	-	-	-	-
1985/86	-	-	-	-	-	-
1986/87	-	-	-	-	258,170	258,170
1987/88	243,252	-	-	-	110,000	353,252
1988/89	-	-	-	-	-	-
1989/90	-	-	-	-	-	-
1990/91	61,934	-	-	-	-	61,935
1991/92	510,688	-	-	-	-	510,688
1992/93	528,757	-	-	-	21,961	550,718
1993/94	711,178	-	-	-	197,299	908,477
1994/95	521,500	-	-	8,683	41,622	571,805
1995/96	304,714	37,790	-	15,400	43,350	401,254
1996/97	461,398	9,415	20,957	-	6,749	498,519
1997/98	726,274	28,424	5,500	5,500	25,299	790,997

<sup>1</sup> Canadian Western Red Spring wheat.<sup>4</sup> Soft White Spring wheat.<sup>2</sup> Canada Prairie Spring wheat.<sup>5</sup> Feed wheat, durum and eastern Canada wheat.<sup>3</sup> Canada Western Extra Strong wheat.

Source: Canadian Grain Commission, various years.

**Appendix Table 2.7 Colombia's Wheat Imports from Selected Countries<sup>1</sup>**

Year	Argentina	Canada	E.U.	United States			Total
	All wheat	All wheat	All wheat	HRS <sup>2</sup>	HRW <sup>3</sup>	SRW <sup>4</sup>	
	1,000 tonnes						
1983/84	14	-	-	30	493	45	650
1984/85	-	-	-	-	572	50	600
1985/86	75	26	-	-	454	45	600
1986/87	83	202	52	35	205	36	645
1987/88	67	94	22	18	347	38	801
1988/89	100	163	-	-	353	53	663
1989/90	11	182	-	131	238	60	646
1990/91	-	198	-	114	256	97	693
1991/92	226	300	6	125	108	72	678
1992/93	112	490	-	161	34	98	883
1993/94	7	465	11	-	124	85	920
1994/95	94	423	19	18	109	103	829
1995/96	-	340	-	176	334	139	994
1996/97	94	382	-	208	99	124	917
1997/98	-	591	-	41	284	98	1,048

<sup>1</sup> U.S. data is June/May.<sup>2</sup> Hard Red Spring wheat.<sup>3</sup> Hard Red Winter wheat.<sup>4</sup> Soft Red Winter wheat.

Source: USDA (United States and total) and individual exporter reports.

**Appendix Table 2.8 Mexico's Wheat Imports from Selected Countries**

Year	Argentina All wheat	Canada All wheat	E.U. All wheat	United States <sup>1</sup>			Total
				HRS <sup>2</sup>	HRW <sup>3</sup>	SRW <sup>4</sup>	
	1,000 tonnes						
1983/84	104	363	-	4	25	-	551
1984/85	-	-	-	-	-	4	313
1985/86	-	-	-	-	-	-	88
1986/87	-	236	21	-	73	-	424
1987/88	-	309	39	40	197	-	614
1988/89	-	66	-	-	1,061	-	1,157
1989/90	-	-	-	-	196	-	213
1990/91	-	62	21	145	159	-	434
1991/92	20	492	16	31	82	4	667
1992/93	17	479	35	177	466	15	1,210
1993/94	-	942	67	69	691	-	1,788
1994/95	-	603	-	-	673	24	1,311
1995/96	-	400	-	137	839	64	1,460
1996/97	-	433	-	237	992	140	1,829
1997/98	-	852	-	22	1,027	57	1,991

<sup>1</sup> U.S. data is June/May.<sup>3</sup> Hard Red Winter wheat.<sup>2</sup> Hard Red Spring wheat.<sup>4</sup> Soft Red Winter wheat.

Source: USDA (United States and total) and individual exporter reports.

**Appendix Table 2.9 Canadian Durum Production and Exports, 1989/89-1997/98<sup>1</sup>**

Crop year	Canadian Durum Production	Canadian Exports	World Exports	Canadian Export Market Share
		1,000 tonnes		percent
1988/89	1,979	2,034	5,778	35.2
1989/90	4,140	2,847	6,432	44.3
1990/91	4,197	3,232	6,205	52.1
1991/92	4,586	3,091	6,664	46.4
1992/93	3,138	2,279	6,524	34.9
1993/94	3,358	2,903	5,520	52.6
1994/95	4,689	4,028	6,826	59.0
1995/96	4,648	3,222	5,372	60.0
1996/97	4,627	4,094	6,050	67.7

<sup>1</sup> Includes Semolina.

Source: International Wheat Council, World Grain Statistics, GMR Reports; CWB, Statistical Tables.

**Appendix Table 2.10 Major World Barley Exporters: 1984/85–1997/98<sup>1</sup>**

	<i>Australia</i>	<i>Canada<sup>2</sup></i>	<i>EU<sup>3</sup></i>	<i>United States</i>	<i>Others</i>	<i>Total<sup>4</sup></i>
<i>Year</i>	<i>percent</i>					<i>1,000 tonnes</i>
1984/85	25.9	14.5	42.2	6.6	10.8	18,000
1985/86	19.9	19.4	39.5	4.1	17.2	18,500
1986/87	12.0	35.1	33.3	15.8	3.7	18,600
1987/88	10.2	27.3	43.8	17.6	1.1	16,000
1988/89	8.6	16.5	52.7	10.8	11.4	15,855
1989/90	13.5	23.9	44.7	10.2	7.5	17,703
1990/91	13.5	22.9	35.6	7.6	20.4	19,813
1991/92	10.3	17.6	43.7	11.0	17.5	19,019
1992/93	15.6	16.2	30.8	9.6	27.8	16,695
1993/94	22.8	20.7	33.7	8.4	14.4	18,539
1994/95	8.7	19.4	32.5	8.7	30.7	15,552
1995/96	25.5	17.7	18.8	8.9	29.1	13,224
1996/97	23.2	19.9	35.7	7.0	14.2	17,306
1997/98	21.6	16.3	24.5	8.1	29.5	13,084

<sup>1</sup>Excludes malt.

<sup>2</sup>Canada: August–July; all others October–September.

<sup>3</sup>EU-12 member states from 1985/86; unified Germany; EU-15 from 1994/95; excludes EU intra-trade.

<sup>4</sup>Because of rounding, percentages may not add to 100 percent.

Source: CWB, Statistical Tables.

**Appendix Table 2.11 Major Barley Importers, Selected Years, 1990/91–1997/98<sup>1</sup>**

	<i>1990/91</i>	<i>1992/93</i>	<i>1994/95</i>	<i>1996/97</i>	<i>1997/98</i>
<i>Importer</i>	<i>1,000 tonnes</i>				
Saudi Arabia	4,342	3,917	3,200	5,479	3,150
Russian Federation	3,555	1,554	584	500	213
Japan	1,508	1,663	1,751	1,610	1,449
Eastern Europe	1,204	1,533	689	892	443
China	915	648	1,300	2,036	1,176
USA	443	195	1,125	887	748
Libya	725	603	300	653	600
Israel	410	571	500	313	421
O.W. Europe	324	398	575	607	403
Jordan	144	339	500	591	211
Taiwan	253	242	374	206	211
Others	5,990	5,032	3,587	3,507	3,714
World Total	19,813	16,695	14,485	17,281	12,739

<sup>1</sup>October/September.

Source: USDA, FAS, Grain: World Markets and Trade, various issues.

## APPENDIX 10A

### CAR ALLOCATION POLICY GROUP<sup>1</sup>

The end of the Western Grain Transportation Act spelled the end for government rail-car allocation. It was decided that an industry rail-car allocation system was needed to slowly transfer allocation to a commercial mechanism. Following is a discussion of the creation and objectives of the industry's Car Allocation Policy Group (CAPG), and the role of the CWB in rail-car allocation.

According to Decision #475-R-1998,

The SEO Group and the interim CAPG Group were responsible for setting up CAPG and ensuring that it was functional for August 1, 1996. The SEO Group includes the Senior Executive Officers of the major grain companies, vice-presidents or executive vice-presidents of the railway companies, senior representatives of the CWB as well as producers. The interim CAPG Group included representatives of the CWB, railway companies, producers and the Western Grain Elevator Association (hereinafter the WGEA).

The document entitled Car Allocations, Policies and Procedures dated August 1, 1996 (hereinafter the manual) was approved by the SEO Group and sets out the framework of CAPG. It includes an overview of car allocation policy for 1996-97, capacity planning and the CAPG constitution. The manual states that "The intent is to establish CAPG as a transition mechanism until the year 2000 during a period when shippers and railways will be moving progressively towards direct commercial relationships and enhanced shipper/carrier accountabilities...." (8-15)

According to Decision #475-R-1998, the CAPG's objectives, as stated in its constitution are as follows:

- effect allocation through a formal, non-legislative, consultative process that avoids gridlock;
- foster greater accountability between shippers and carriers;
- move to commercial arrangements for logistics management;
- set high-level car allocation policy for regulated western Canadian grain traffic only;
- operate in an impartial and transparent manner; and
- function as a non-profit association.

CAPG develops guiding policies and principles for car allocation, but does not actually perform day-to-day allocation.

CAPG members or signatories are comprised of shippers of rate-regulated grain (major grain companies and smaller shippers), the CWB, CN, and CP. The evidence discloses that during the 1996-1997 crop year there were approximately 33 signatories to CAPG.

The four person Executive Committee of CAPG is composed of the CWB, WGEA (representing grain shippers), the railway companies (either a CN or CP representative) and a producer. The responsibilities of the Executive Committee are set out in the manual and include:



- establishing guidelines for corridor priorities during periods of rationing;
- establishing guidelines for dividing car supply between CWB, non-CWB, and non-administered segments;
- ensuring ongoing monitoring of approved policies is undertaken; and
- ensuring adequate capacity planning and information dissemination is undertaken to allow the market to function properly.

The CAPG Secretariat's responsibilities include providing support to meetings of CAPG as well as monitoring the application of CAPG policies.

The CAPG Technical Committee assists the Secretariat with respect to preparation of the Capacity Working Plan and the Four Month Plan. Evidence indicates that during the subject crop year the Committee was composed of members of each of the major grain companies, the two railway companies, the CWB as well as two producer representatives.

CAPG operates on the basis of consensus. For example, consensus was achieved during the 1996-1997 crop year in order to have the Capacity Working Plans and the Four Month Plans released. The caveat is that decision-making regarding issues that are strictly operational and commercial in nature do not include the input of the CAPG producer representative.

The CAPG constitution provides for arbitration as a means of settling disputes between carriers and shippers with respect to the application of CAPG policies. The CAPG policies themselves are not subject to arbitration....

## **CAPACITY PLANNING**

Decision #475-R-1998 states, "The manual sets out the procedures to be followed for capacity planning" as follows:

The first step is to collect monthly sales demand information from the participants of CAPG by traffic corridor. This information is provided by the CWB for Board grains, by the grain companies for administered non-Board grains and by the railway companies for non-administered crops. In the CWB's case, the sales figures provided for the Capacity Working Plan are comprised of numbers from the CWB's detailed marketing plan. As a further input into the planning process, the railway companies supply the average car cycle time by traffic corridor by month.

The CAPG Secretariat then calculates both total sales demand and total operational projected railway car requirements by corridor, by month. The total operational projected car requirements are adjusted to reflect terminal unload capacity restrictions and railway fleet availability. West coast corridor terminal unload capacity, which is defined in the manual as "...the best consecutive four week unloads, for the period covering October through December, for the preceding three years...", for the 1996-1997 crop year was eventually set at 4,900 as a total for both CN and CP....

## **CAPACITY PLANNING—FOUR MONTH PLAN**

Decision #475-R-1998 describes the Four-Month Plan for Capacity Planning as follows:

Each month the CWB, CN, CP and the grain companies meet with the CAPG Secretariat to discuss the Four Month Plans. The CWB submits sales requirement by corridor by month and the grain companies and the railway companies submit the sales requirements for the non-administered non-Board and the administered non-Board grains. The CAPG Secretariat prepares unload guideline tables by corridors for discussion among participants. The CWB, CN, CP and the grain companies attend these meetings and consensus is reached by all parties regarding the numbers to be released. The Secretariat will then issue the Four Month Plan.

The numbers in the first month of the Four Month Plan are considered firm whereas the numbers in the next three months are operational projections. The Secretariat distributes the Four Month Plan to industry participants for sales and operational planning. The Four Month Plan states:

The purpose of the Plan is to assist carriers, shippers and terminal operators in planning their resource requirements for the upcoming four month period, and to provide marketers with an estimate of current grain movement capacity within various traffic corridors....

The Four Month Plan states that the operational guidelines reflect the Technical Committee's estimate of the maximum unloads that the grain handling and transportation system can sustain on a consistent basis at the West Coast.

## NOTES

- 1 Taken from Decision No. 475-R-1998, Canada Transportation Agency: the CWB complaint against the CNR and CPR, 1998 (CAPG, 1998).

## APPENDIX 10B

### THE CTA HEARING OF THE CWB COMPLAINT AGAINST CPR

#### BACKGROUND

In the case against the railways, according to *Decision Canada* (Decision #475-R-1998), the CWB alleged that the CPR and CNR had breached their service obligations under the CTA:

- In failing to provide suitable and adequate accommodation for receiving, loading, unloading and delivering grain traffic;
- In failing, without delay, and with due care and diligence, to receive, carry and deliver grain traffic;
- In failing to furnish and use all proper appliances, accommodation and means necessary for receiving, loading, carrying, unloading and delivering grain traffic;
- In failing to furnish all other services incidental to grain transportation that are customary or usual in connection with the business of a railway company;
- In failing to afford to the CWB all adequate and suitable accommodation for receiving, carrying and delivering grain traffic on and from their railways, for the transfer of traffic between their railways and other railways and for the return of rolling stock.

The CWB filed its level of service complaint regarding three areas: (1) regulated corridors (West Coast and Thunder Bay), administered by the Car Allocation Policy Group (CAPG); (2) the "winter rail program," or the delivery of wheat and barley to eastern Canada; and (3) the U.S.-bound commercial movements of CWB grain. Regarding regulated corridors, both the CP and the CWB are members of the CAPG, an industry-led association that, among other matters, establishes unload guidelines and deals with high-level car allocation. The CWB believed that the CP should have met, but fell short of, the CAPG unload guidelines. For example, the CWB alleged that shipments to Vancouver for the period from December 2, 1996 through March 30, 1997, had an unload deficiency of 11,356 carloads. In addition, the CWB alleged that the CP failed to provide grain with a treatment consistent with that provided to other commodities during the period of complaint.

In hearing the CWB complaint, the CTA received many written submissions from a variety of parties interested in grain transportation, including the Province of Saskatchewan, the Saskatchewan Association of Rural Municipalities, the National Farmers Union, the Western Canadian Wheat Growers Association, the Saskatchewan Wheat Pool, and the Western Grain Elevator Association. Moreover, the following were permitted to cross-examine: Province of Saskatchewan; Lee Morrison, M.P.; Saskatchewan Wheat Pool; Western Grain Elevator Association; and the Western Canadian Wheat Growers Association. The Province of Saskatchewan made the final argument. The public hearing took place in Saskatoon, Saskatchewan on March 30, 1998 and adjourned on May 28, 1998. It reconvened in Ottawa on June 4 and 5, 1998 to hear the final argument.

In regard to issues at the hearing, the law states the following:

Under the CTA, railway companies have an obligation to furnish suitable accommodation for traffic and to transport it without delay, with due care and diligence. Any person who believes that a railway company is not providing an appropriate level of service may file a complaint with the Agency in which case the Agency shall conduct an investigation into the complaint as, in its opinion, is warranted. Should the Agency determine that a company is not fulfilling its service obligations, it may make various kinds of remedial orders....

Following is the CWB's argument:

The CWB argues three points regarding a railway company's statutory obligations under the CTA. Firstly, the CWB argues that a railway company's duties under the CTA are strictly imposed and that the Agency may only relieve a company from its duties in exceptional circumstances. In this regard, the CWB relies on the Railway Transport Committee of the Canadian Transport Commission (hereinafter the RTC) decision in *Canadian Pacific Limited (Esquimalt and Nanaimo Railway Company)* [1976] CTC 353 which the CWB argues stands for the proposition that the word "shall" as contained in the level of service obligation provisions, is to be interpreted in such a way that the service obligations are an imperative duty upon the railway companies to provide suitable and adequate accommodation. The CWB submits that while the RTC agreed that a railway company's duty is permeated with reasonableness, the RTC also held that a company has a strict statutory duty to maintain adequate and suitable accommodation, unless, through no negligence or fault of the company, it is unable to do so....

Secondly, the CWB argues that the case of *A.L. Patchett and Sons Ltd. v. Pacific Great Railway Co.* [1958] S.C.R. 271 (S.C.C.), which has been cited in the past as standing for the principle that a railway company's statutory duty is permeated with reasonableness, ought to be construed narrowly as limited to the peculiar facts of that case. In that case, an action for damages had been commenced by a shipper which alleged a failure by the Pacific Great Eastern Railway to spot cars at a lumber mill during the course of a labour strike by the employees of the mill. The CWB points out that Mr. Justice Rand warned that the case only dealt with the precise situation which was presented to the Court. The CWB argues that the facts surrounding the CWB's complaint are not similar to the Patchett case and therefore it ought not to be followed.

Finally, the CWB, citing a number of cases, puts forward the proposition that preference, unequal treatment, prejudice and discrimination can never be reasonable and that the CTA must be interpreted in such a way so that different types of traffic are treated equally. For example, the CWB relies on the case of *Terry Sheuchuk et al. (Re)* [1992] N.T.A.R. 191 which states:

One of the main purposes of these carrier services is to protect the public from arbitrary or discriminatory treatment by a rail carrier in the provision of its services. In this case, it is apparent that the railway company is meeting the service requirements of one type of shipper, while arbitrarily imposing sanctions against a different type of shipper which is requesting service from the same sidings.

**REMEDIES**

The CTA's conclusions regarding the CP were:

- 1) That the CP has breached its level of service obligation by:
  - a) Not allocating to CWB grain moving to Vancouver its reasonable share of available capacity and resources; and
  - b) Failing to supply the number of cars it had undertaken to supply under contract with the CWB for movement of CWB grain into the United States.
- 2) CP be required to deliver grain cars to meet the unload determined through the CAPG process on Western corridors and Thunder Bay.
- 3) CP be required to honor its commercial arrangements and commitments on movements to the United States and to eastern Canadian ports in accordance with the level of service provisions of the CTA.
- 4) The CP be prohibited from discriminating against grain in the provision of railway services.
- 5) An order that CP develop appropriate procedures to deal with outages and recovery from outages in the future and submit these procedures to the Agency for approval after appropriate consultation with all shippers which may be affected by the procedures. Any breach of such procedures will constitute a failure to meet service obligations under the CTA.

Appendix Table 11.1 China and the Soviet Union: Wheat Import Market Shares in Fiscal Years, 1978-1988 (July/June)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	Mean	cv <sup>1</sup>
	percent												
China:													
European Community	0	1	04	1	10	2	1	4	9	0	10	4	1.0
Argentina	11	6	1	2	14	1	9	8	9	2	6	6	0.7
Australia	18	43	11	11	9	19	20	42	39	14	10	22	0.6
Canada	39	30	21	25	31	43	35	37	43	51	22	34	0.3
United States	32	20	62	61	36	35	34	8	1	31	49	34	0.5
Soviet Union:													
European Community	0	6	6	8	16	18	22	33	39	14	31	18	0.7
Argentina	0	17	19	15	20	18	15	4	4	3	4	11	0.7
Australia	2	22	16	12	5	8	8	20	08	1	2	9	0.7
Canada	39	17	28	24	34	28	27	31	37	20	17	27	0.3
United States	57	32	19	34	14	21	22	1	5	57	30	27	0.6

<sup>1</sup>cv is the coefficient of variation.

Source: Compiled from USDA data.

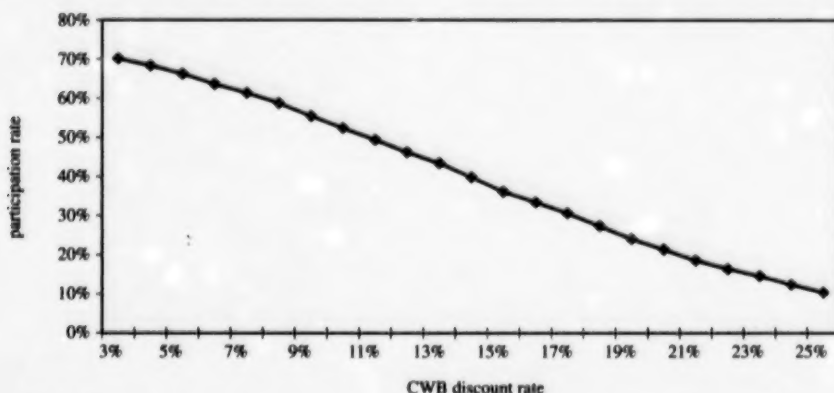
## APPENDIX 13A

### POOL EQUITY CASH-OUT

Simonot et al. (1997) used a simulation model to determine the degree of farmer participation in this type of program:

In the aggregate, the model shows 70 percent of farmers would choose to cash-out at a 3 percent CWB discount rate, approximately 50 percent at a 10 percent rate and still 10 percent at the 25 percent discount rate given the assumptions on producer discount rates and price expectations. [Appendix Figure 13.1] illustrates the percentage of farmers (volume of grain) that the model indicates would participate in the cash-out program or, equivalently, sell their negotiable certificates.

**Appendix Figure 13.1 Participation Rate in Cash-Out at Various CWB Discount Rates**



Source: Simonot et al., 1997.

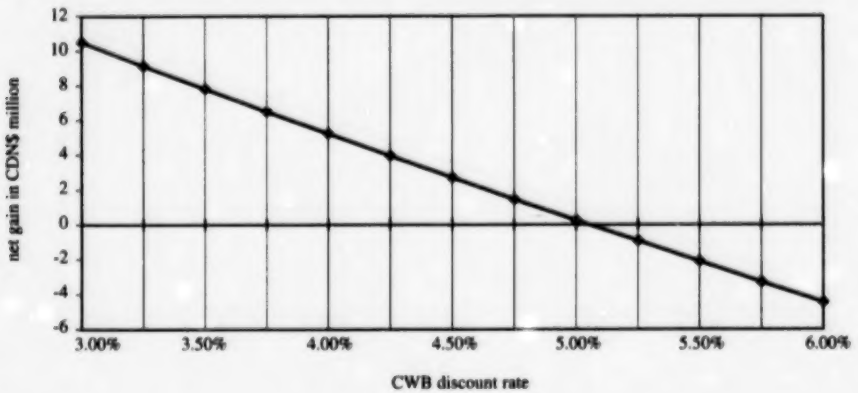
Simonot et al. (1997) continue:

Essentially, this cash-out program would allow the average farmer to receive cash sooner from the CWB and to pay off loans or to invest the cash at a higher rate than the CWB borrows at. Thus, if the CWB discount rate is 3 percent and farmers are at 5 percent, there is approximately a 2 percent gain to be had on the outstanding payments. There is a gain to farmers when the CWB discount rate is below the mean of farmer discount rates (5 percent). If outstanding payments are assumed to be approximately \$600 million in the wheat pool account (about 20 percent) and farmers cash-out (or sell their certificates) in January, a year prior to the final



payment, the gains are illustrated in [Appendix Figure 13.2]. At a CWB discount rate of 3 percent, farmers show a net gain of almost \$11 million (approximately 2 percent (5 minus 3) multiplied by \$600 million). There is a clear linear relation of the benefits with the value of outstanding payments (principal) and the interest rate differential. (34)

**Appendix Figure 13.2 Potential Net Gains to Producers Due to Early Payments**



Source: Simonot et al., 1997.

**APPENDIX 13B**  
**CASH PRICING**

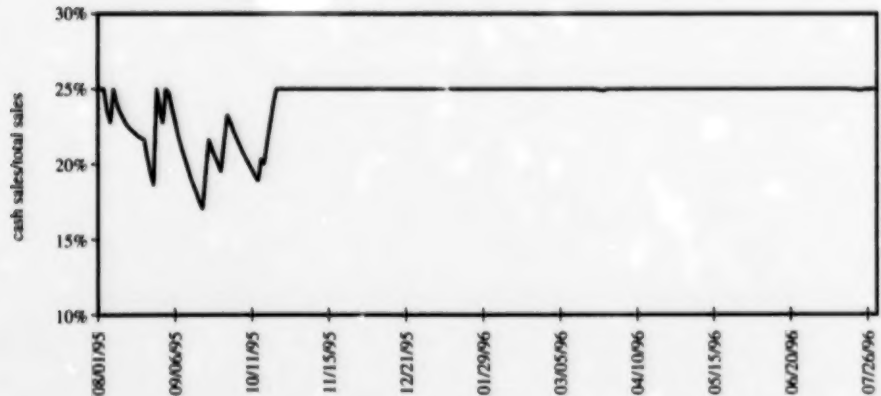
The effect of the 25 percent constraint on the cash-pricing model in the 1995/96 crop year is shown below. Appendix Figure 13.3 shows that cash-priced sales reach the 25 percent constraint in the beginning of the crop year and are constrained throughout much of the year.

The price comparison between the Minneapolis cash price and the CWB prices for the 1995/96 crop year is shown in Appendix Figure 13.4. The Minneapolis cash price is plotted against the PRO and/or EPR, the initial payment, and the total payment. The graph illustrates when the cash-priced sales occur (which is whenever the cash price exceeds the PRO and/or EPR). Note that the y-axis has been shortened and does not include zero in order to focus attention on these price series. This provides a picture of why the 25 percent cash sales constraint graph behaves as it does.

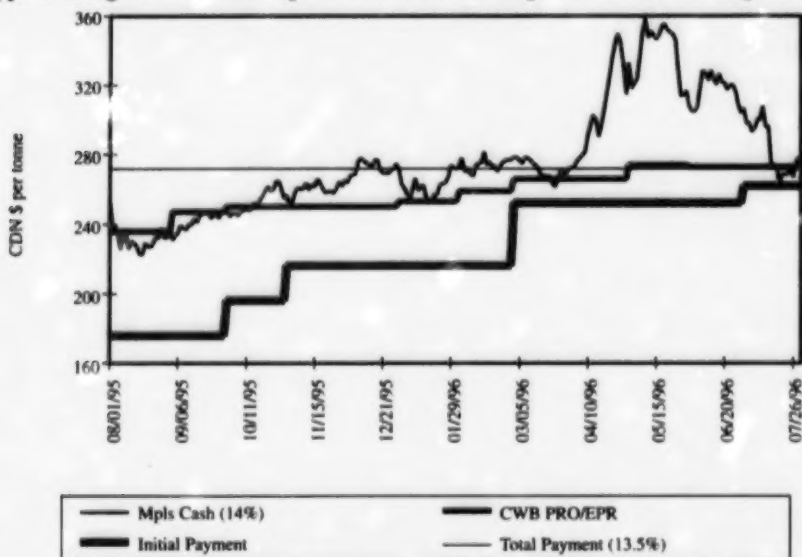
Simonot et al. (1997) write:

Using the basis range of zero to \$125 per tonne, the realized annual gain to producers (and loss to the pool account) on an aggregate level ranged from a high of almost \$170 million to a loss of \$10 million. These two extremes were both attained in the same crop year, 1993-94. The three other crop years ranged from approximately zero to \$75 million. To put these numbers into perspective, the

**Appendix Figure 13.3 Timing of Cash-Pricing Sales Versus 25 Percent Constraint in Simulations, 1995/96 Crop Year**



Source: Simonot et al., 1997.

**Appendix Figure 13.4 Minneapolis - CWB Price Comparison 1995/96 Crop Year**

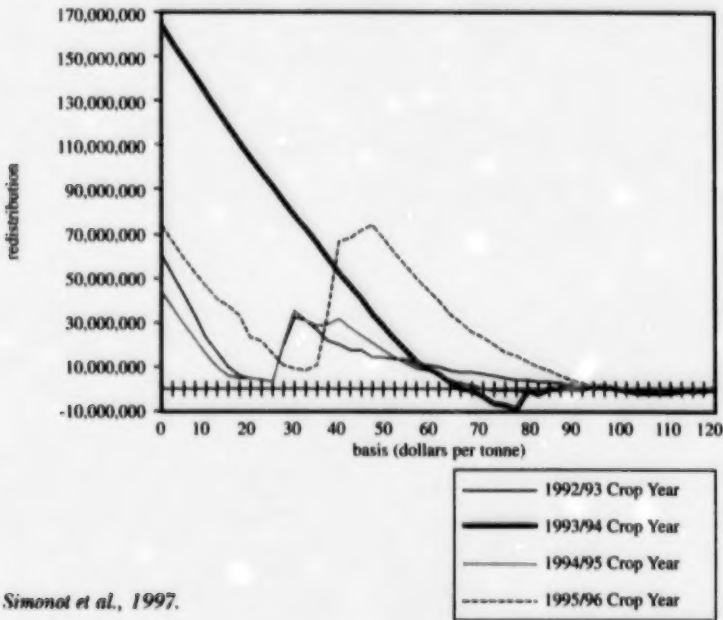
Source: Simonot et al., 1997, p. 59.

yearly average total value of wheat sold through the pool for the four years under study was \$2.733 billion.... Another way to analyze the results is on a per tonne basis. Using this type of analysis, the additional revenue to cash-priced sales ranged from approximately \$55 per tonne to a loss of \$16 per tonne with a corresponding decrease to the pool account. The high and low were both attained in the 1993-94 crop year with the other three years ranging from \$25 per tonne to a loss of \$8 per tonne [Appendix Figure 13.5]. It is important to recognize that the cash-pricing program has no effect on the sales strategy of the CWB. Since all sales are still carried out through the CWB (only priced differently), there is no aggregate gain to a cash-pricing mechanism. Some producers are able to achieve higher prices, but this is fully offset by others who receive lower prices and by the accumulation of a cash-pricing deficit. Again, such a deficit might end up being paid by the pool account, since it has to be covered by someone. (35-38)

The authors continue:

The maximum individual gain/loss per tonne graphs show the highest and lowest additional revenue per tonne an individual farmer could have received at different basis levels relative to the total pooled payment. The gain represents the increase in revenue if the farmer were able to pick the top of the market for making cash-priced sales. The loss represents the reduction in revenue the farmer would incur if the farmer sold to the cash market at the lowest cash price while still acting on a true cash sales price signal. This gives the model some micro-economic perspective. In the 1995/96 crop year, the maximum gain declines in a linear fashion from a high

**Appendix Figure 13.5 Redistribution From Pooled Sales to Cash-Price Sales**



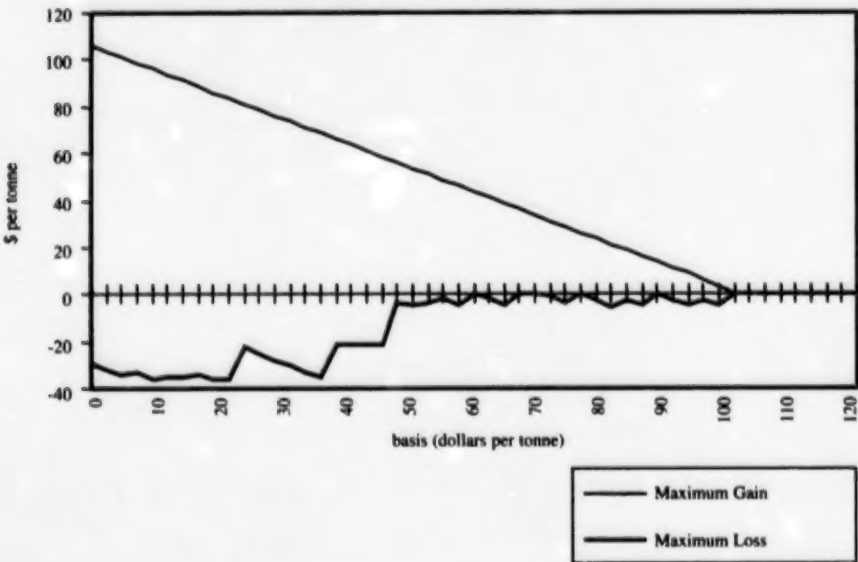
Source: Simonot et al., 1997.

of between \$82 and \$108 per tonne when the basis is equal to zero and zero by the time the basis reaches \$125 per tonne. The minimum gain is slightly negative in most of the crop years. This indicates that the farmer could incur a loss and therefore be worse off by selling through the cash program as opposed to the pool. This loss ranges from \$10 to \$35 per tonne depending on the crop year and basis level. There is not an overall trend to this line other than at very high basis levels, the loss will approach zero as the basis reaches \$125 per tonne because the cash-pricing program is not used by farmers at these high basis levels. This is presented graphically below for the 1995/96 crop year in [Appendix Figure 13.6]. (39–40)

Simonot et al.'s (1997) table (Appendix Table 13.1) shows the additional revenue which could have been captured by farmers at an aggregate level for each of the four crop years under study; as well, it shows a four-year average. Additionally, the authors write:

[Appendix Table 13.2] shows the realized additional revenue that could be earned on a per tonne basis for each of the four years as well as the average over the four years. The cash-pricing deficit (loss to the pool account) is less than the gain on a per tonne basis since the balance is divided over a larger number of tonnes that are priced through pooling. [Appendix Tables 13.3 and 13.4] show the maximum possible gain and loss for each crop year and an average gain and loss for each of the basis levels that an individual farmer could receive when selling grain at the cash price. (41)

**Appendix Figure 13.6 Maximum Individual Gains or Losses on Cash-Price Sales at Different Basis Levels, 1995/96 Crop Year**



Source: Simonot et al., 1997.

**Appendix Table 13.1 Simulated Redistribution from Pooled Sales to Cash-Price Sales**

Basis	1992/93	1993/94	1994/95	1995/96	Average
CDN \$ per tonne	million CDN \$				
10.00	23.37	133.42	5.58	46.02	54.60
12.50	16.31	125.90	9.84	40.99	48.26
15.00	10.21	118.55	5.56	37.03	42.84
17.50	5.52	111.24	4.83	32.82	38.60
20.00	5.27	104.18	4.67	23.01	34.28
22.50	4.25	97.62	3.80	21.23	31.73
25.00	3.53	91.10	3.10	15.86	28.40
27.50	19.36	84.36	19.82	10.68	33.55
30.00	31.96	77.68	35.21	9.20	38.51

Source: Simonot et al., 1997.

**Appendix Table 13.2 Realized Additional Revenue to Cash-Price Sales**

<i>Basis (CDN \$ per tonne)</i>	<i>1992/93</i>	<i>1993/94</i>	<i>1994/95</i>	<i>1995/96</i>	<i>Average</i>
10.00	\$5.92	\$43.72	\$5.06	\$14.98	\$17.42
12.50	4.13	41.26	3.20	13.34	15.48
15.00	2.59	38.85	1.81	12.05	13.82
17.50	1.40	36.45	1.57	10.68	12.53
20.00	1.34	34.14	1.52	7.49	11.12
22.50	1.08	31.99	1.24	6.91	10.30
25.00	0.89	29.85	1.01	5.16	9.23
27.50	4.90	27.64	6.44	3.48	10.61
30.00	9.44	25.45	11.67	2.99	12.39

Source: Simonot et al., 1997.

**Appendix Table 13.3 Maximum Individual Gains on Cash-Price Sales**

<i>Basis</i>	<i>1992/93</i>	<i>1993/94</i>	<i>1994/95</i>	<i>1995/96</i>	<i>Average</i>
<i>CDN\$ per tonne</i>	<i>gain, CDN\$ per tonne</i>				
10.00	\$97.96	\$97.52	\$71.99	\$96.12	\$90.90
12.50	95.45	95.02	69.49	93.63	88.40
15.00	92.96	92.52	66.99	91.12	85.90
17.50	90.45	90.02	64.49	88.63	83.40
20.00	87.95	87.52	61.99	86.12	80.90
22.50	85.45	85.02	59.49	83.62	78.40
25.00	82.96	82.52	56.99	81.13	75.90
27.50	80.45	80.02	54.49	78.62	73.40
30.00	77.96	77.52	51.99	76.12	70.90

Source: Simonot et al., 1997.

**Appendix Table 13.4 Maximum Individual Loss per Tonne on Cash-Price Sales**

<i>Basis</i>	<i>1992/93</i>	<i>1993/94</i>	<i>1994/95</i>	<i>1995/96</i>	<i>Average</i>
<i>CDN\$ per tonne</i>	<i>loss, CDN\$ per tonne</i>				
10.00	\$9.66	\$3.20	\$29.66	\$35.69	\$19.55
12.50	9.71	5.70	32.16	35.39	20.74
15.00	10.68	8.20	34.66	34.63	22.04
17.50	10.49	10.70	35.06	34.48	22.68
20.00	9.70	13.20	34.69	35.60	23.29
22.50	9.60	15.70	32.25	35.73	23.32
25.00	9.65	18.20	34.75	22.80	21.35
27.50	9.57	20.70	35.23	25.30	22.70
30.00	9.31	20.14	34.80	27.81	23.01

Source: Simonot et al., 1997.

## APPENDIX 13C

### CALCOT STRUCTURE AND MARKET FUNCTION

Calcot Ltd. was formed in 1927 as a grower-owned cotton cooperative. With its more than 3,000 members, it has evolved into a full-service clearing, warehousing, marketing, and shipping organization that sells cotton throughout the world. Calcot is the largest seller and shipper of California's San Joaquin Valley acala, pima, and Arizona desert cottons. In aggregate terms, Calcot's market share of California cotton is roughly 50 percent, while its market share of Arizona's crop is approximately 70 percent. Calcot is the single largest supplier of pima cotton in the world.

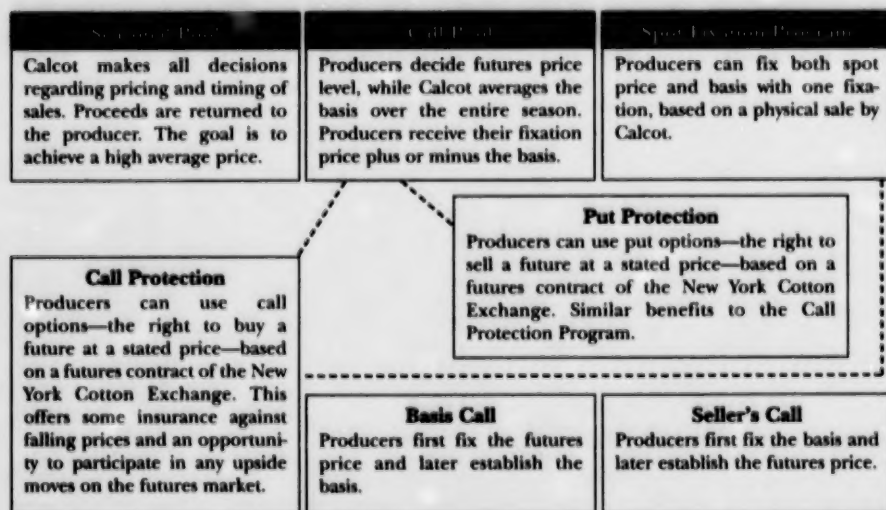
Growers' cotton moves from Calcot-affiliated gins directly to Calcot's extensive warehouses which can store more than a million bales of cotton. In servicing Calcot's members, warehousing is a key factor.

Calcot operates both a call pool, which has, as one component, a spot-fixation program, and a seasonal pool. Roughly 25 percent of California cotton marketed through Calcot is directed to the call pool whereby producers can use Calcot's services and can undertake risk management strategies through the cotton futures market. Between 15–20 percent of Arizona cotton is marketed through the call pool. The largest percentage of cotton is marketed through the seasonal pool whereby producers receive cash for their cotton at the time of delivery.

### MARKETING PROGRAM OPTIONS

Calcot has several options for producers, presented in the flow chart below, and described in further detail below.

**CALCOT'S MARKETING PROGRAMS**





## SEASONAL POOL

This is the base of Calcot's cooperative marketing, in which Calcot's professional marketing staff makes all marketing decisions. As seasonal pool members, farmers are allowed to devote 100 percent of their time to growing cotton without worrying about day-by-day marketing decisions. At the end of the season all sales are averaged; farmers receive the price on each graded quality of cotton they produced according to the overall thirty-month (or longer) period during which sales are made. Because of this extended period of marketing, the seasonal pool can never receive the absolute top price paid during the marketing period. Management's goal, however, is to return an average price that is above the statewide average. Calcot makes sales to mills at fixed prices as well as on an on-call basis. Calcot uses the futures market to fix prices for on-call sales to mills, and to help in the timing of sales. Use of the futures market is closely controlled, never speculative, and is employed only as a hedge that is offset by physical cotton.

## REGULAR CALL POOL

The regular call pool is designed for growers who want to call (or fix) the futures portion of their price, but who do not wish to market their own basis. The basis for a regular call-pool fixation is the average basis negotiated during the season by Calcot's management. In this alternative, the growers decide the futures market level they think will be most advantageous and then place their orders with Calcot. When Calcot sells the necessary futures, the grower will be notified. At season's end, the average basis is added to the futures price to arrive at a final price.

To designate cotton into the call pool, farmers may designate a specific number of bales, or all of their expected production, into the call pool by executing a call pool contract on, or before, the deadline of March 1 of the crop year. If a specific number of bales is designated into the call pool, additions can be made to that designated number, as long as it is accomplished on or before the deadline date. Cotton designated into the call pool *cannot* be revoked and later placed into the seasonal pool. An exception to this rule would apply to unfilled orders which are not over one week old, and were made prior to the March 1 deadline for placing cotton into the call pool. Farmers who have cotton in the seasonal pool, and who also have designated cotton to one of the other call pool marketing options, must have their call pool contracts fulfilled first.<sup>1</sup>

### Call Pool Deadlines

**March 1** — Cotton must be designated to the Call Pool. Only the specific number of bales need to be established, not the fixation level.

**July 31** — Growers must establish their Call Pool fixation levels by July 31 following harvest. If their Call Pool price has not been fixed by July 31, Calcot will do so in the following weeks.

## NOTES

- 1 One point has been raised concerning Calcot's management statement in offering the spot-fixation program, Calcot assumes no risks. This cannot be true, though, since risks cannot be hedged like changes in futures prices. There is basis risk, but Calcot, through various means, such as inventory sales during very active sales periods, tries to keep basis risk to a minimum.



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# **THE CANADIAN WHEAT BOARD MARKETING IN THE NEW MILLENNIUM**

*by Andrew Schmitz & Hartley Furtan*

The Canadian Wheat Board (CWB) is one of the largest and longest standing public export-marketing agencies in the world, accounting for about 12% of world trade in cereals. Its primary activity is marketing cereal grains for farmers in western Canada, and for this purpose it has a mandate from the Canadian government to operate in the domestic and world markets as a monopoly seller of Canadian wheat, durum, and barley for human consumption, and feed wheat for export.

Due in part to the CWB's monopoly nature, controversy has always surrounded its operation and mandate, but in the 1980s and 1990s this controversy intensified, with challenges coming to the CWB from many fronts, both within and without the borders of Canada.

In this timely and comprehensive study, the authors carefully examine Canada's position in the world wheat and barley markets, and the CWB's role relative to multinational grain companies. They conclude that although the CWB has won many of its battles to date, and has had a positive impact on producers, it must continually be open to change. That the CWB could work better is beyond a doubt, but the authors believe that criticism needs to be rigorous and not motivated by the politics of special interest groups, as has so often been the case in the past.

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